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COMPUTER RESERVATION SYSTEMS

HEARING

BEFORE THE

SUBCOMMITTEE ON AVIATION

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON

COMPUTER RESERVATION SYSTEMS

MARCH 19, 1985

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COMPUTER RESERVATION SYSTEMS

TUESDAY, MARCH 19, 1985

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
SUBCOMMITTEE ON AVIATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:33 a.m., in room SR-253, Russell Senate Office Building, Hon. Nancy Kassebaum (chairman of the subcommittee) presiding.

Staff members assigned to this hearing: Chuck Doyle, staff counsel, and Steve Palmer, minority professional staff member.

OPENING STATEMENT BY SENATOR KASSEBAUM

Senator KASSEBAUM. The hearing will come to order.

I would like to thank everyone who is participating in the hearing this morning concerning the airline computerized reservation system [CRS]. It is one that evidently is attracting some attention. I very much appreciate those who are testifying this morning. It is an issue of interest and of concern to all, and it is my hope that this hearing will provide us with some useful information in analyzing the current situation and what remedies can be taken.

I would like to focus today on the competitive impact of CRS in the airline industry. Although we must necessarily touch on it, I would like to stay away from extended discussion of any of the possible remedies. The witnesses should be careful to complete their summaries in, I have said, 5 minutes. As you know, it will extend beyond that, but it certainly will be useful to us if we can keep the testimony shortened.

Thank you very much for those who are testifying, and I would like to call the first witnesses testifying for the administration, the Honorable Matthew Scocozza, Assistant Secretary, Office of the Assistant Secretary for Policy and International Affairs; and the Honorable Charles F. Rule, Deputy Assistant Attorney General, Antitrust Division, Department of Justice.

Before we begin the testimony, Senators Hollings and Inouye had planned to be here but could not; they have asked that their prepared statements be made a part of the record.

[The statements follow:]

OPENING STATEMENT BY SENATOR HOLLINGS

Madam Chairman, last year this Committee worked long and hard on finalizing the last phase of airline deregulation. With enactment of the Civil Aeronautics Board Sunset Act, we took the last step in ending the Federal government's involvement in the domestic airline industry. Or so we thought.

Now, in these early months of the 99th Congress, the first issue this Subcommittee is facing is whether or not to intervene in the operations of the airline industry's computer reservation systems. Some have talked of divestiture, which I would not support. Essentially, my feeling has been that if someone builds a better mousetrap, let it be. However, after reviewing the testimony our witnesses will be presenting today, I must acknowledge that there may be a legitimate role, albeit much less intrusive, for government on the CRS issue.

It seems to me that the key question to be considered throughout these hearings is whether or not computer reservation systems are an essential part of doing business. If they are, then the benefits they provide must be offered to all airlines on a fair and nondiscriminatory basis. If they are not considered to be essential, then the burden on this Committee is diminished, as other means of marketing airline tickets must exist.

I am looking forward to disecting the CRS issue in these terms. I think we have the necessary experts to help us today, and I want to welcome them. I also want to commend Senator Kassebaum, and Senator Exon for their fine work in putting together what should be an exceptional hearing.

OPENING STATEMENT BY SENATOR INOUYE

Today's hearing is concerned with the ownership, manner of operation, and financial arrangements involved in the Airline Industry's Computer Reservation System (CRS).

Approximately 65% of all domestic airline sales are made through travel agencies; and, it has been estimated that this system accounts for about 90% of those sales. It is no exaggeration therefore to say that it has become essential to the travel industry; and by extension to the public which that industry serves.

Several of the witnesses this morning will urge that the subcommittee recommend legislation to: Require that the airlines be divested of ownership of the system; "fine tune" DOT's rules governing the conditions of its ownership and operation.

In other words, that Congress dismantle the principal mechanism by which a majority of the travelling public makes its reservations.

Within the last ten years we have seen two major industries restructured—one through legislation (airlines), and the other by the FCC and the Courts with congressional acquiescence (AT&T).

In the first instance we were told that the increased competition which would result from airline deregulation would mean lower fares and better service. Many of those in Congress who supported that legislation have since expressed their disappointment and regret that the real world of deregulation is quite different than the theoretical world.

And within one year of the break-up of AT&T, grave concern was expressed by many that local telephone rates might rise so sharply throughout the country that it might be necessary for Congress to "fine tune" the work of the court and the FCC.

The current Airline Computer Reservation System is subject to Federal regulations which were adopted after nearly two years of study and investigation. Those regulations, which have only been in effect since last November, are intended to address the concerns which will be raised here today.

In view of the two experiences with restructuring industries, and the manifest inability to re-do what has been undone, I believe Congress should be extremely cautious in this area. My reluctance is further underscored by the short time which these rules have had to operate (4 months); the appropriateness of the legislative process to "fine tune" administrative regulations; and the availability of an administrative forum (DOT) if the present rules are inadequate to ensure the best service for the travelling public.

Senator KASSEBAUM. It is a pleasure to welcome Senator Exon at this point to give a few comments.

OPENING STATEMENT BY SENATOR EXON

Senator EXON. Madam Chairman, thank you very much. I want to apologize to you and the expert witnesses that we have here today on this tremendously important matter.

I just wanted to say briefly that there is an awful lot going on on the floor of the U.S. Senate with the MX missile debate that I am involved in. I also have two simultaneous meetings of subcommittees dealing with the strategic defense initiative. Those are major national security issues, and if not for their national importance, I would be here to address this very, important matter. I have, however, been kept fully abreast of today hearing by staff.

I have talked to many of the witnesses in advance. I complement you, Madam Chairman, for calling the witnesses that you have, because I think this is an issue that our subcommittee must address, and I will be working closely with you in attempting to resolve the matter.

I want to say to all that are here, I know that this is an issue that has brought forth some very strong feelings pro and con. It is up to the chairman and myself, as the ranking minority member, to try and work out some kind of a compromise on a tremendously complex situation. I struggle to try and understand these computers and how they work, how sometimes they do not work. I know how important it is to the airline industry, in particular, and I will be giving a great deal of time and attention to this issue in the future, I assure you, Madam Chairman, and the witnesses, and those that are interested. But I do hope that you will understand that this is a very difficult day for me timewise, and as the chairman knows much better than any of you testifying, those of us here in these supposedly important positions have nothing whatsoever to do in managing out time, unfortunately.

Senator KASSEBAUM. That is true.

Senator EXON. But I thank the witnesses for appearing.

Senator KASSEBAUM. Thank you very much, Senator Exon.

Mr. Scocozza, would you like to begin first? It is a pleasure to welcome you.

STATEMENT OF MATTHEW SCOCOZZA, ASSISTANT SECRETARY, OFFICE OF THE ASSISTANT SECRETARY FOR POLICY AND INTERNATIONAL AFFAIRS, DEPARTMENT OF TRANSPORTATION

Mr. SCOCOZZA. Thank you, Madam Chairman. It is nice to come home.

It is a pleasure to be here today. The topics under discussion are computer reservation systems, the rules governing these systems, and what additional actions, if any, the Department of Transportation or the Congress should undertake to ensure that these systems are not used to stifle competition in the airline industry.

The Department of Transportation is committed to preserving the price and service benefits that airline deregulation has brought about. A competitive marketplace—a marketplace where all air carriers have an equal opportunity to succeed or fail on the basis of their efficiency and their ability to meet the needs of the traveling public—is the best means of ensuring that air carrier travelers have the fullest range of fare and service options available to them. Secretary Dole is committed to ensuring that competition in the airline industry is preserved.

Deregulation can work as the Congress intended only if carriers can compete on the merits of the fares and services they offer. The

analyses conducted by the CAB and the Department of Justice demonstrated that CRS vendors enjoyed substantial market power. The CAB concluded that they used this market power to reduce competition and to distort the information travel agents received. The CAB's original rules prohibit bias in primary displays, but permit vendors to provide travel agents with secondary displays that are biased.

In formulating its rules, the CAB apparently believed that if agents had equal access to biased and unbiased displays, agents would opt for the unbiased display. It is now claimed that the continued availability of biased displays, coupled with mechanisms and incentives that make it less attractive to use primary displays, threaten to undercut the rules against bias. Some carriers, moreover, contend that the rules have not eliminated all display bias even in the primary displays.

As a general matter, given the financial incentives vendors have for offering biased displays, and the economic incentives that are available to agents who utilize a biased system, it is extremely difficult to design rules that completely foreclose a vendor's ability to bias its system to give it some advantage.

There is also considerable concern within the aviation community as to the fee structure the major vendors have imposed in response to the rule. The new fees charged by some of the CRS vendors do indeed represent a sharp increase for many carriers. But the fees actually went down for some carriers, and it is by no means clear that the new fees are unreasonable. The CAB was aware of the vendors' proposed fees before the rules went into effect, and it allowed them to go forward. In doing so, the CAB noted that the new fees were close to the range it had expected.

The Department believes that it would be premature to undertake measures like the regulation of access fees or divestiture. The rules have only recently become effective and they should be given a chance to work. The magnitude and exact nature of any remaining problems with the rules are not fully clear, and it is even less clear that extreme solutions are necessary. We should be especially wary of such solutions because they involve substantial problems of their own.

Madam Chairman, before determining what, if any, further actions the Department should take, we intend to carefully evaluate the current CRS rule, especially the secondary bias and pricing issues. Of course, and as an important part of our evaluation, we will consult with the Department of Justice to consider their views on this matter. We are aware that the Justice Department will continue to evaluate these matters as well, and coordination between our Departments will be desirable and necessary.

This concludes my prepared statement, Madam Chairman. I would be pleased to answer any questions the committee may have at this time.

Senator KASSEBAUM. Thank you very much. It is a pleasure to welcome both Senator Trible and Senator Gorton. I think Senator Trible had no opening comments.

Senator Gorton?

Senator GORTON. Thank you, Madam Chairman. I appreciate your permitting me to sit in at least briefly on a hearing of a sub-

committee of which I am not a member. The subject matter, however, is both a matter of interest and of concern to me. I believe very strongly in the most free and most open possible competitive environment, and any set of serious allegations which indicates that airline ticketing is not so free and so competitive and that decisions are made on the basis of factors other than price and convenience of airline passengers I find to be disturbing.

I do have a hearing of my own subccmmittee of the Commerce Committee at 10 o'clock, Madam Chairman, and if I may I would ask your permission to leave some written questions for the some of the witnesses and ask that they be responded to in due course.

Senator KASSEBAUM. They will be, and thank you for coming.

It is a pleasure to welcome Senator Ford, too, and I understand you have no opening comments.

Mr. Scocozza, as I have mentioned to you before, there is no one who knows the ins and outs of deregulation more than you do, and have given guidance to us certainly here in the Senate.

I would like to ask you if DOT has gathered any hard statistical data that would allow a comparison between the pre- and post-bias rule that would give us some indication of what effect the rule has had?

Mr. SCOCOZZA. Madam Chairman, we have been compiling information but it is just too early to make any conclusions. As my testimony indicated, we will gather more information, but at this point it is really premature to draw conclusions. The CRS rule has only been in effect 4 months.

We have been talking with a lot of carriers, and we have been contacting any individual or carrier or organization that has any information to give us at the Department. But at this particular time, the statistics are not persuasive in either direction.

Senator KASSEBAUM. Not enough of a trend?

Mr. SCOCOZZA. Right.

Senator KASSEBAUM. You have not seen any real perhaps emphasis on the second screen and the bias that evidently does exist there, that this has not been made more of a focus and emphasis since the rule?

Mr. SCOCOZZA. On the basis of meetings with individuals and carriers, I think that the kinds of bias that have been shown to us are the types of bias that perhaps existed before the rule. But there is no marked demonstration that the bias now is worse than it was before, or the bias now is better than it was before. And once again, if there is bias, we need to determine if it is of such an anticompetitive nature that additional regulation is required.

Senator KASSEBAUM. What would be the technical difficulties or the policy considerations that would enter into modifying the CRS rule? For instance, that would eliminate secondary screens but allow direct access to the internal system?

Mr. SCOCOZZA. I think one of the problems we would have, Madam Chairman, is that if we issued a rule in an attempt to fix something, it might not be effective and we might find ourselves 6, or 7, or 8 months down the road attempting to fix it once again and again and again. This is a very, very complex exercise.

As a matter of fact, I sat in on a little session with a travel agent and asked her to do her best to show me some bias. And it took a

while for her to find a clear indication of what she believed was bias on the screen. And the travel agent, who I felt was very, very competent, had no reason to distort the situation, one way or the other. She was being very helpful.

That reveals that the screens are very complex. If we issue a rule a CRS vendor with the intention of retaining bias of an anticompetitive nature might be able to go around the rule. That is why I think, if the government does anything again in this area, we should do if effectively.

I am afraid that if we jumped on the regulatory bandwagon now, we might have to fix it once again later. I think there is a lot of research that we have to do in terms of the effectiveness of the existing rule. I have heard a lot of regulatory suggestions, but I think there may be holes in every one of them. So we are not convinced that a regulatory change is in order at this time. It is not precluded, but we have got to be convinced.

Senator KASSEBAUM. Thank you. Senator Ford?

Senator FORD. Matt, you have been associated with this committee for a few years, and you are very familiar I think with our previous efforts at regulating and deregulating various and sundry industries. And each time, for better or for worse, our ultimate goal has been to benefit the public at large with more competition, or lower prices, or better service.

In this regard, what I want to know is whether consumers—that is, airline travelers—are benefiting from these computer reservation systems as of now, in your judgment?

Mr. SCOCOZZA. Senator, that is a very broad question. In a very general sense, I would have to say yes, that the service given to a consumer is far better than several years ago when a travel agent had to flip through the Official Airline Guide and make several phone calls and tell the consumer. that he will get back to him in a couple of hours. Now, however, you can almost instantaneously provide a service to the consumer.

Also the amount of information on the displays is much better than it ever was before. It includes even car rentals, hotel rooms, the type of rooms available, the types of cars available. So I think the service that is provided to the consumer from the computer reservation system as a whole is an extremely beneficial one, especially in reducing waiting time.

Senator FORD. You mentioned a moment ago that you visited with a travel agent who was very competent, in your opinion, who attempted to try something that would not be quite ethical. If that travel agent had been asked: I want the lowest fare—that consumer who is going to travel has that prerogative, I suspect—would that travel agent then be able to bring up on the screen the lowest fare from X to Y and return?

Mr. SCOCOZZA. I believe, Senator, that is possible. The travel agent is in business to serve the consumer and if the consumer says, I want the absolute cheapest fare, I think the travel agent would use the CRS to obtain that type of information even if the cheapest fare is a five-stop trip.

With no direction from the consumer, the travel agent may use a biased screen. But once the consumer makes other requests —I want to fly nonstop; I want to fly at 8 o'clock in the morning; I do

not want the plane to stop; I want a nice meal; I do not want a bagle; I want a guaranteed seat—those kinds of requests inhibit the use of a biased screen.

I think the biased screen is used mostly in situations where the consumer says, I want to fly from Washington to Chicago, or I want to fly from St. Louis to Louisville, with no other qualifications.

Senator FORD. During Derby time, yes.

Let me ask this: Does the Department of Transportation have sufficient authority to change the rules to solve any concerns we might have about the impact of the computer reservation system on the consumer?

Mr. SCOCOZZA. Yes, Senator. I firmly believe the authority that transferred from the Civil Aeronautics Board to the Department of Transportation gives us a tremendous amount of leeway in doing anything to the rule. But once again, it is a question of what measure of fixing would benefit the industry and the consumer.

Senator FORD. I thank you, Madam Chairman.

Senator KASSEBAUM. Senator Gorton?

Senator GORTON. On November 14 last year, the CAB issued rules mandating unbiased primary displays for computerized reservation systems. The rules allowed for continued bias on secondary displays. I have been informed, without being able to check the accuracy of the information, that American Airlines and United Airlines have recently offered travel agencies the programming option that locks agency counselors onto biased secondary displays with no option of switching to unbiased primary displays.

First I would like to know whether or not in your view that is true. And second, whether or not if it is true it violates the CAB rules in your view.

Mr. SCOCOZZA. Senator, with respect to the locking mechanism or the switching mechanism, both of the witnesses that are the vendors will be here later in the day and can answer specifically. I do believe that there is a way in which the owner of a travel agency can flip a switch and the biased displays will come up on the screens, but that is an affirmative action that must be done.

The agency, not the vendor has control over that. If the owner of a travel agency wants all of his or her travel agents operating off a biased screen, it is the agency owner is choice, and he or she must do something affirmatively to accomplish that. If the agency owner does not do that, when a travel agent walks in the door and turns on the screen, the unbiased display will come up. So it depends on the choice of the owner of the agency.

Alternatively, Senator, the owner of the agency could walk out in front of all his travel agents and say that it is the policy in this travel agency to work off the biased screen, because the return to the agency is better with increased bookings from a particular carrier. That is a decision that the owner of the agency makes.

Of course, that agency takes a risk with consumers, because the travel agency next door may not choose to exercise that policy.

Senator GORTON. Is there an agency relationship between a travel agency and its customers?

Mr. SCOCOZZA. I think travel agencies have a professional responsibility to the public. There is also a contractual relationship between the vendor and the travel agency.

Senator GORTON. Well, my question is, in your example to Senator Ford of probably the average passenger who simply tells the travel agent he wants to travel from Washington, DC, to Chicago, there is no legal obligation on the travel agent to find either the most convenient or the least expensive option under those circumstances, or to inform the potential customer of the alternatives?

Mr. SCOCOZZA. I think there are certainly professional standards that the travel associations have to provide the best, the most economical, and the most efficient services to the traveler.

But if I had a travel agency and if someone came to me and asked for my best advice as to the best way to travel between Knoxville, TN, and Kingsport, TN, my home town, I would have some discretion in recommending carrier A or carrier B.

I think a responsible travel agent—and I believe most of them are—would ask the consumer: What are you interested in? Are fares important to you? Is service important to you? Is a seat important to you? Or are you a nonsmoker and do you want to be on a plane with no smoking at all, because we have airlines that prohibit smoking?

So I think the travel agent has the responsibility to ask certain questions of the customer, and on the basis of those questions to provide that service. But, once again, many times there are customers who really do not care and say, just get me to Chicago. In those cases, the agent has some degree of discretion.

I think we would be getting very, very regulatory if we started giving standards to travel agents and giving them guidelines in terms of how they respond to their customers.

Senator GORTON. In your view, is it possible to remove all bias in favor of the owner of a computerized system when the owner is an airline?

Mr. SCOCOZZA. I think it would be very, very difficult, Senator. But I would also say that all bias is not necessarily anticompetitive. In a grocery store, certain providers of a product want their product on the best shelf and offer incentives for it. That is not necessarily anticompetitive. But if a provider says you will not have anybody else's product available, that is a bias that has to be addressed.

So I am not endorsing bias, but I am saying that it depends on the degree of bias whether it is anticompetitive.

Senator GORTON. That is a bias, Matt, which is a violation of the Federal statute. The real question is whether this is a bias which would be a violation of the Federal statute.

Mr. SCOCOZZA. Exactly.

Senator GORTON. The CAB compiled a factual findings in connection with its investigation of the CRS issue which has not been publicly released. If these materials are still inappropriate for public release, is there any reason why the information cannot be made available on a confidential basis to the subcommittee or to its chairman?

Mr. SCOCOZZA. I do not see why it could not be, Senator. Certainly any information that is available at the Department we can

share with you. But there are certain caveats. The information is very raw and inappropriate conclusions can be drawn from raw data. With that caveat, I would certainly be more than willing to share information and guidance with the staff and the members.

Senator GORTON. Thank you.

Senator KASSEBAUM. Senator Trible.

Senator TRIBLE. Thank you, Madam Chairman. I have just one question. That is, simply, how long will it take the Department to complete its review of the current regulatory regime in the operation of the reservation system?

Mr. SCOCOZZA. Senator, if the rule had been in effect 2 or 3 years, I would say our internal study and investigation would be relatively short.

We need the system to mature a bit to really study it. I would say our study would take something of the order of 3 months or so. But I would caution that 3 months from now we may not be able to draw conclusions from the data that we have. So I cannot give you a hard-and-fast timetable.

Senator TRIBLE. Well, there are those who advocate the committee should take no action and let the market forces work their will and give you, the executive agencies, the opportunity to determine if what goes on is fair and reasonable; and if not, take remedial action. That may be a highly persuasive argument if there is some likelihood that your Department will respond in a timely fashion.

So what are you saying today, more precisely?

Mr. SCOCOZZA. What I am saying today, Senator, is that we have no conclusions as of this date as to the degree of harm that exists, and the proper response to take to those harms. But it is a matter that the administration is very seriously concerned about and we are monitoring it very carefully. I think the Department of Justice may talk about antitrust cases that might be in order or that perhaps the solution would be enforcement. And as soon as we determine the appropriate action for the Government to take, I am sure we would pursue it promptly.

I know that is not giving you a specific answer to the question, but it is because we do not yet know the degree and the specifics of the harm that may be occurring.

Senator TRIBLE. Let me say, you certainly made the transition from the Congress to the executive branch successfully.

Senator FORD. Even with a noticeable suntan.

Senator TRIBLE. I noticed the suntan, as well, I would tell my colleague, but I showed restraint in calling it to the public's attention.

Well, you mentioned 3 months, but I gather from your response there really is no timetable. If the committee concludes that some action is warranted, then it will require legislative action? Is that what you are telling us?

Mr. SCOCOZZA. I would assure you, Senator, that the committee will not be in the dark as to our progress and our conclusions. As I responded to the Chairman's question, we will work with the committee staff and help them understand what we are doing at the Department, the types of information that we are getting, so that you will not just be waiting for us to come back to you 3 months from now. Committee staff are certainly be welcome to come to our offices and learn what we are learning at the same time.

Senator TRIBLE. I thank you very much.

Senator KASSEBAUM. And we will share with you what we are learning, as well.

Senator FORD. Madam Chairman, could I make an observation?

Senator KASSEBAUM. Certainly.

Senator FORD. I hope we have the ultimate decision.

With regard to bias, as long as humans operate the machines, mistakes are made, or somebody does not feel they are getting their fair share, there are going to be accusations and I think we have to weigh that or factor it in. I have always found that word of mouth is probably the best advertising you can get: why I went over to X travel agency and I got it this quick and for this amount, and I want over to Y and I got it and it took me 2 hours longer, and it was much higher, and that sort of thing. Word gets around.

When you are beginning to do those sort of things in competition, I think that the accusation relates to tilting toward one airline or the other, it is the efficiency and the ability of an agent to respond to a consumer's request. They have that all at their fingertips and can punch the button and commit at that moment, while they are there and take their charge card and go on.

I hope we do not get too far involved before we have an opportunity—and I agree with the Secretary that we should at least give it a little more time before we begin to try to straighten things out. It has to have time to play its way out from whatever kinks might be in it. Not every airline has a CRS, and those who do not have one are going to be against it. That is simple. Like Russell Long says, it's no deal unless I'm in on it; and those that are not in on it say this ain't no deal.

Thank you.

Senator KASSEBAUM. I think that is true. I think it is interesting to note, however, that when we talk about not wanting to stifle competition, that actually the first three systems—Saber has 40 percent, Apollo 31, and PARS, 18 percent; 90 percent being there in the first three systems of the agencies CRS. So there is a control that exists, and I think obviously a factor as we look at this.

You say if you are not in it, you want a part of the action, but it is really very threatening competition in exactly how one can even begin to compete. I think it is interesting to note that the travel agents did not wish to testify today because they are so split and uncertain and really in many ways intimidated by this particular situation that they did not even wish to have testimony made part of the record.

Mr. SCOCOZZA. If I can make an observation, Senator, with respect to the travel agents and consistent with the good Senator from Kentucky's comments, about the travel agent I went to. I think everybody has a favorite travel agent that they trust and depend on to provide the quality of service that is needed, as with the very competent lady that I went to to ask about her system.

I gave her several city market pairs, and before she ever touched the computer she said the best service would probably be on carrier A, or the best service in this market will probably be on carrier B. Good travel agents really do not need the computer, because they know the best service that their consumers and their customers have been provided. She relies on the machine to understand the

time the flights are and the prices of the flights, which are another consideration for the passenger.

Senator KASSEBAUM. Thank you very much for your testimony this morning.

Mr. SCOCOZZA. Thank you for having me.

[The statement follows:]

STATEMENT OF MATTHEW V. SCOCOZZA, ASSISTANT SECRETARY FOR POLICY AND INTERNATIONAL AFFAIRS, DEPARTMENT OF TRANSPORTATION

Good morning Madam Chairman. It is a pleasure to be here today. The topics under discussion are computer reservation systems (CRS), the rules governing these systems, and what additional actions, if any, the Department of Transportation, or the Congress, should undertake to ensure that these systems are not used to stifle competition in the airline industry.

The Department of Transportation is committed to preserving the price and service benefits that airline deregulation has brought about. A competitive marketplace—a marketplace where all air carriers have an equal opportunity to succeed or fail on the basis of their efficiency and their ability to meet the needs of the traveling public—is the best means of ensuring that air travelers have the fullest range of fare and service options available to them. Secretary Dole is committed to ensuring that competition in the airline industry is preserved.

I would like first to review the conclusions reached by the Civil Aeronautics Board (CAB) in its investigation of computer reservation systems and vendor practices. Next, I will briefly review the rules that now govern computer reservation systems—rules that seek to prevent CRS vendors from acting in an anticompetitive manner. I will then briefly discuss why it is so difficult to design and implement any effective regulatory policy—including divestiture—to deal with these systems and vendor practices. Finally, I will describe the course of action the Department of Transportation proposes to follow in order to gain a better understanding of whether and what regulatory actions should be initiated in this area.

Deregulation can work as the Congress intended only if carriers can compete on the merits of the fares and services they offer. The analyses conducted by the CAB and the Department of Justice demonstrated that CRS vendors enjoyed substantial market power. The CAB concluded that they used this market power to reduce competition and to distort the information travel agents received. It is important to note here this distortion, or "bias" is not, by itself, a sufficient reason for government intervention. Bias exists to some degree in virtually all markets.

Today, travel agents sell approximately 70 percent of all airline tickets, and roughly 90 percent of the tickets issued by travel agents are issued through automated reservation systems. Given the proliferation of fare and service offerings that has followed in the wake of deregulation, and the substantial productivity gains these automated systems permit, it is easy to understand why almost all travel agents consider the use of a computer reservation system essential for profitable operations. Given the agents' reliance on these systems, and the fact that a small difference in a carrier's average load factor in certain markets can make the difference between earning a profit and incurring a loss, air carriers are concerned that their fare and service offerings are accurately and fairly displayed on these systems. The evidence gathered by the CAB and the Department of Justice on CRS practices demonstrated that the vendors had substantial power over an important part of the marketing and distribution system in the airline industry. First, the major CRS vendors have high market shares. At the national level, America's Sabre system has a 49 percent share of automated travel agent revenues, and United's Apollo system has a 31 percent share. Four other vendors serve the remaining 20 percent of the market. In certain major travel markets, one vendor often dominates the marketing of air transportation. In Denver, for example, United's Apollo system has a 72 percent market share; in Portland, United's market share is 66 percent; and in Cleveland, it is 64 percent. American's Sabre system is similarly dominant in other important travel markets.

Second, barriers to entry into the computer reservation market were found to be high. Market forces could not be relied upon in the short term to discipline vendors and ensure competitive behavior and performance. High barriers to entry were found to result from substantial costs that a potential entrant would have to incur to develop and market an alternative system, the inability or unwillingness of agents to switch systems, and the fact that vendors priced their services artificially low on the basis of the increased air transportation revenue they could expect to

receive because agents were tied to their systems. Finally, the fee structures imposed by the vendors on participating carriers were found to be unjustly discriminatory and were not related in any reasonable manner to the costs incurred in providing the information to the agent. Through anticompetitive bias and discriminatory fees, vendors could selectively exert a substantial degree of control over their airline competitors' costs. Indeed, the evidence indicated that CRS vendors could, and did, increase their fees at the same time they increased the amount of bias they programmed into their displays—in effect, offering an inferior product for a higher price.

Based on its authority under section 411 of the Federal Aviation Act (49 U.S.C. 1381), the CAB issued rules that were designed to limit, with a minimum of regulatory interference, the vendors' ability to use their market power in an anticompetitive manner. The rules went into effect on November 14, 1984 (amendments to the rules were issued shortly thereafter). The major provisions of those rules are:

Bias is prohibited in primary information displays. (The rule applies to both direct and connecting flights.) Vendors are also required to load other carriers' flight information in the CRS "with the same care and timeliness" used in loading information regarding their own services.

Access fees are prohibited from being "unjustly discriminatory."

Contracts between vendors and travel agents are limited to five years.

Vendors are required to supply participating carriers with any marketing, sales, and booking data they elect to generate on "reasonable and non-discriminatory terms."

Vendors are permitted, but not required, to discriminate against those foreign carriers whose computer reservation systems discriminate against U.S. carriers.

Finally, the Board determined that the rules should terminate on December 31, 1990, unless the Department of Transportation determines that the rules should remain in effect.

These rules have not put on end to the controversy surrounding CRS. As you know, the rules are currently being challenged in the Court of Appeals for the 7th Circuit. Aside from the court challenge, the two issues that have raised the most concern are continued anticompetitive bias in automated displays and the level of airline access fees.

The CAB's original rules prohibit bias in "primary" displays, but permit vendors to provide travel agents with "secondary" displays that are biased. In formulating its rules, the CAB apparently believed that if agents had equal access to biased and unbiased displays, agents would opt for the unbiased display. It is now claimed that the continued availability of biased displays, coupled with mechanisms and incentives that make it less attractive to use primary displays, threaten to undercut the rules against bias. Some carriers, moreover, contend that the rules have not eliminated all display bias even in the primary displays.

As a general matter, given the financial incentives vendors have for offering biased displays, and the economic incentives that are available to agents who utilize a biased system, it is extremely difficult to design rules that completely foreclose a vendor's ability to bias its system to give it some advantage.

With regard to the secondary display issue, the CAB was aware that it was creating a loophole when it allowed bias in secondary displays. The question is whether that loophole is indeed as large and as threatening as many argue it is, and, if it is, what corrective action is needed. To make these determinations, we require additional information.

There is also considerable concern within the aviation community as to the fee structure the major vendors have imposed in response to the rule. The new fees charged by some of the CRS vendors do indeed represent a sharp increase for many carriers. But the fees actually went down for some carriers, and it is by no means clear that new fees are unreasonable. The CAB was aware of the vendors' proposed fees before the rules went into effect, and it allowed them to go forward. In doing so, the CAB noted that the new fees were close to the range it had expected.

The Department believes that it would be premature to undertake draconian measures like the regulation of access fees or divestiture. The rules have only recently become effective, and they should be given a chance to work. The magnitude and exact nature of any remaining problems with the rules are not fully clear, and it is even less clear that extreme solutions are necessary. We should be especially wary of such solutions because they involve substantial problems of their own.

For example, whether access fees are reasonable is difficult to determine, especially given the complexity of estimating and allocating the costs of providing automated reservation services to non-vendors, travel agents, and the vendor itself. Madam Chairman, I think you will also agree that a regulatory structure designed to judge

whether automated reservation fees are reasonable would be highly bureaucratic, inefficient, and could easily result in market distortions that would serve to discourage entry into the automated reservation industry. However, if a significant share of reservations are still being booked on biased systems, then participating carriers may have a valid argument when they claim they are receiving the worst possible outcome: higher fees and continued anticompetitive bias. These issues deserve serious attention.

Madam Chairman, before determining what, if any, further actions the Department should take, we intend to carefully evaluate the current CRS rule, especially the secondary bias and pricing issues. Of course, as an important part of our evaluation, we will consult with the Department of Justice to consider their views on this matter. We are aware that the Justice Department will continue to evaluate these matters as well, and coordination between our Departments will be desirable and necessary.

This concludes my prepared statement, Madam Chairman. I would be pleased to answer any questions you or other members of the Subcommittee may care to ask.

[The following information was subsequently received for the record:]

U.S. DEPARTMENT OF TRANSPORTATION,
OFFICE OF THE SECRETARY OF TRANSPORTATION,
Washington, DC, April 12, 1985.

Hon. ERNEST F. HOLLINGS,
Ranking Minority Member, Science and Transportation, U.S. Senate, Washington, DC.

DEAR SENATOR HOLLINGS: As you requested, I have prepared answers to your follow-up questions on computer on reservation systems (CRS).

As you are no doubt aware, on March 26, 1985, and subsequent to my testimony on reservation systems before the Aviation Subcommittee, the Department of Transportation reached a voluntary agreement with United States Airlines, American Airlines, and Trans World Airlines to eliminate secondary display bias. The Department believes that without the use of biased displays, the ability of CRS vendors to use their automated reservation systems to enhance their market power should be substantially diminished.

If I can be of further assistance, please let me know.

Sincerely,

MATTHEW V. SCOCOZZA,
Assistant Secretary for Policy and International Affairs.

Enclosure.

Question. Mr. Scocozza, what role do you see DOT having on the CRS issue? Apart from maintaining the efficient operation of the airline industry in a dereguated environment, what philosophy guides the Department in examining this issue?

Answer. The Department of Transportation is committed to preserving and enhancing competition in the airline industry. Vigorous competition, we believe, will promote low fares, a greater variety of services, and airline efficiency. We also recognize our responsibility to maintain a fair and consistent system of rules which protect the free play of market forces.

At the same time, however, the Department does not believe it is in the best interest of air travelers or the airline industry to undertake regulatory actions without adequate facts or without a full appreciation of the consequences of our actions. We must, therefore, carefully distinguish those circumstances which demand a specific and immediate solution from those which, while a matter of concern, require further evaluation and analysis. These principles have governed the Department's position on the CRS issue and the action taken by Secretary Dole to secure, on March 26, 1985, the voluntary agreement of United Airlines, American Airlines, and Trans World Airlines to eliminate secondary display bias.

Question. In your testimony, you state that the allegations related to the secondary display issue may need corrective action, but that additional information is needed. What steps has DOT taken to gather this necessary information?

Answer. In view of the widespread concern that secondary display bias may confer excessive power on CRS vendors, Secretary Dole has sought and obtained its immediate removal. Under her leadership, the major CRS vendors have agreed to eliminate both the availability of biased, multi-carrier, secondary displays and associated lock-in mechanisms.

With regard to gathering additional information on CRS issues, my staff has already met with Department of Justice staff, and our Departments have agreed to

cooperate to the extent possible in the further investigation of CRS that both Departments are planning.

Question. You also agree that if in fact participating carriers are being charged higher fees for bookings from the biased secondary screen, "serious attention" is warranted. Can you please elaborate as to what serious attention might entail?

Answer. The vendors' agreements to eliminate the biased secondary screens renders moot the issue of fee reasonableness for bookings on those screens. Nevertheless, we are aware that there is also concern about fee reasonableness for bookings off other screens and that fees generally will be the subject of litigation by certain air carriers and a continuing investigation by the Department of Justice. It is our intention to monitor these developments closely.

We would point out, however, in promulgating the CRS rules, the CAB expressed its desire to avoid costly and protracted proceedings to define reasonable fee levels, anticipating that competition among vendors, and the market power of subscribing carriers, might be sufficient to prevent excessive charges. While the question of whether the new fees are "reasonable" has not been resolved, we believe that it is too soon to conclude that the fees are in fact "unreasonable." Indeed, the fees have actually gone down for some carriers. Moreover, the CAB anticipated that vendors would increase their fees. Subsequently, the Board stated that the new fees were close to the range it expected.

Question. Are there any plans for the Department to begin a rulemaking on the CRS issue? If not, what would DOT's position be on legislative divestiture?

Answer. At this time, the Department has no plans to begin a rulemaking on the CRS issue. We believe that the only problem susceptible of immediate resolution on the basis of available information has been solved by the vendors' agreement to eliminate the biased secondary display, and that it would be counterproductive to modify the rules without allowing adequate time to assess their overall effectiveness.

Moreover, in view of the brief period the rules have been in effect, the uncertainty of potential consequences of divestiture, and the certainty of extensive costs and delays, the Department does not regard the option of divestiture as practical or justified at this time.

Question. Do you believe consumers, as a whole, benefit from the continuation of the biased secondary system?

Answer. I do not believe that consumers, as a whole, benefit from a biased secondary screen, although it may slightly enhance the convenience of booking those air travelers that participate in "frequent flyer" plans. I am confident that all consumers will be served with greater fairness and efficiency as a result of the vendors' agreement to discontinue their biased secondary displays.

Question. Has the Department studied, or considered studying, the long-term effect airline ownership of the CRSs may have on the structure of the domestic airline industry? Would you care to speculate on this issue for us today?

Answer. Naturally, the long-term competitive structure of the domestic airline industry is of great interest to the Department. We would, accordingly, regard any attempt by CRS vendors to use their market power to promote monopolization of air transportation or to thwart competition among air carriers as a very serious development. Without the use of biased displays, however, CRS vendors' ability to use automated reservation systems to enhance their market power should be substantially diminished. We should also recognize that access to unbiased automated reservation systems may actually facilitate entry into the airline industry, since a new entrant carrier gains access to a nationwide marketing system which it could duplicate only at great expense.

Question. In response to a question from Senator Kassebaum at the hearing, you stated that you thought efforts to modify the CRS rule might result in DOT having to subsequently go back in again and again before all problems were resolved. What is wrong with the Department taking the necessary steps now to merely address the major issue at hand, secondary screen bias, allowing time and experience to guide you on other issues?

Answer. The agreement the Department reached with the major CRS vendors on March 26, 1985, eliminates biased secondary displays. This agreement will allow the Department the time necessary to assess the overall effectiveness of the CAB's rules, while addressing what many parties believe was the rules' major deficiency, namely biased secondary displays.

Senator KASSEBAUM. It is a pleasure to welcome Mr. Rule. Thank you very much.

STATEMENT OF CHARLES F. RULE, DEPUTY ASSISTANT ATTORNEY GENERAL, ANTITRUST DIVISION, DEPARTMENT OF JUSTICE

Mr. RULE. Thank you, Madam Chairman. It is a pleasure to be here. I will also summarize my remarks and try and hold them under 5 minutes.

As the members of this subcommittee are probably aware, the Department of Justice engaged in a 2-year study of computer reservation systems, some in the early 1980's. As a result of that study, we concluded that CRS' indeed have market power, and that market power has been used, or had been used to thwart competition to some extent and to limit entry by others into the CRS and airline markets.

What we found was that no other service effectively competed with CRS for automated scheduling and booking. There was simply no other service that was as convenient as CRS. In addition, we found that because travel agents generally had an exclusive relationship with one CRS, and because carriers felt the need to be on CRS' that were used by a significant number of travel agents in cities they served, individual CRS' had a great deal of market power, or at least had some market power as against other carriers.

In addition, we found that a dominant carrier in a city became the dominant CRS vendor because travel agents wanted to have the best and most convenient access to information about the carrier it tickets the most, and that generally is the dominant carrier. In effect, there is to some extent a synergistic effect between dominant carrier and dominant CRS.

We also determined that the ability to earn incremental revenues on additional bookings by a carrier-vendor as a result of bias in the display screens gave them an advantage both over other carriers to some extent, and over other CRS vendors. In effect by being able to earn incremental revenues, they could depend on those revenues instead of increasing access charges or charges to travel agents. In addition, they could use their bias of screen against other carriers in response to some competitive initiative by that carrier.

Finally, we determined that even if you put all of those things aside—and I think this is very clear to those who have gotten into CRS—that it is very expensive and time consuming to try to develop a successful CRS system.

Our investigation also revealed that, in addition to these theoretical possibilities, there had in fact been actual examples of the exercise of market power both to thwart competition in the CRS market, and also to inhibit competition in the airline travel markets.

We looked at a number of selections at the time. One we considered, and in fact at the outset the reason for the investigation was possible litigation against the dominant CRS systems, particularly the carrier-vendors. That we decided against initially, the reason being that litigation would be very costly, would be very lengthy; we could only sue those people who had in fact violated the antitrust laws, which would mean that in the future other CRS sys-

tems would not be under similar prescriptions that might arise out of the lawsuit.

Similarly, we felt that divestiture, while perhaps the most effective remedy and the one that would be the object of litigation, would have certain costs and again would take a significant amount of time to implement; and for that reason, we felt it was probably best, particularly given the announcement by the CAB that they were going to look into industrywide rules, to pursue that course.

In pursuing that course and in presenting our evidence to the CAB, we also devised a series of rules that we felt at least initially would be the optimal set of rules. We first of all believe that the most important aspect of any set of rules would be an airtight antibias rule. That is, that no carrier-specific bias could be used for ordering or editing displays.

We recommended against mandating specific construction of connection displays because it might inhibit innovation, but we felt that an antibias rule was particularly important and that there should be no way around that antibias rule.

We also wanted a requirement that carrier-vendors provide data on their flight availability, fares, schedules, and rules to other CRS vendors, and to allow ticketing of their flights by those other vendors. We hope that this would encourage entry by new CRS systems.

We recommended initially against—and at this point still believe this is true—against any price regulation. Because of regulatory costs and inefficiencies that can be introduced by such regulation, we felt that we should see whether or not the other rules, the antibias rule in particular, would eliminate the competitive problems and eliminate the need for such a more regulatory and rigorous system of interference by the Government.

We welcome the CAB's rules, but at the time we indicated to the CAB we had a few concerns. First of all, the antibias rule we recognized had a loophole. The secondary screen phenomenon is a result of that loophole.

We also noted that the nondiscriminatory price rule created another serious loophole. Theoretically a CRS vendor could raise its access charges so high that small carriers could not pay. Then, under the CAB rules, the CRS would be free to bias against that carrier. We felt that was also a problem.

We had various solutions. The one that I guess we advocated, if some price rule were necessary, was the zero-price rule. That is, that everyone have mandatory access to minimum services under CRS at no charge. Revenues would have to be earned instead from travel agents, consumers, or from enhancements to carriers on the CRS system.

We have seen a number of problems develop over the past 4 months. I do not think it is time to panic, but those should be noted.

The first, and the one that has been mentioned already, is the secondary display phenomenon. Apparently secondary screens that are biased and are integrated screens are being locked in by a number of travel agents. Both Apollo and Sabre now market this feature, as I understand it.

We also have received allegations of continued bias in primary screens. There is another problem that has been pointed out to us that I am not sure we were aware of at the time of the CAB rules, but that is a problem created by superior access on a real-time basis to marketing data that CRS vendor-carriers have. That enables them to respond very quickly to competitive initiatives of other carriers who do not have the same information.

The problem with this is that it could inhibit other carriers who do not have access to the information, who must rely on old, stale information, or forego competitive initiatives for fear the superior information of their competitors will in effect make any competitive strategy unprofitable.

We have also seen, or at least gotten indications, that Apollo and Sabre have increased their market share. We have not yet seen any new entry, and both of those give us some concern.

And finally, we are concerned about the level-of-access charges which may reflect monopoly prices.

The question of course arises, where do we go from here? The Department of Transportation has explained that they will look into the situation. We have also begun to review the charges and the various problems that have been pointed out to us, and we will continue to monitor the situation. All options, including litigation and divestiture, are being held open.

We think though, however, that we should attempt to work with the rules. After all, they have only been in effect 4 months. The dust really has not settled. Moreover, simply because these rules do not work does not mean that we cannot devise rules that will be more effective. Nobody should have expected perfect rules the first time out. This was a new area, and these are very complex problems. But I believe that at least initially we ought to focus our attention on trying to devise rules that are effective, if these are not, but to first off make sure that these are not.

We are, however, ready to pursue litigation if it becomes apparent that that is necessary, and that industrywide rules by DOT are insufficient and ineffective in correcting the problem.

That concludes my remarks. I will be happy to answer any questions.

Senator KASSEBAUM. Thank you very much, Mr. Rule. I was interested in hearing you say, and you have somewhat answered it in your concluding statements, that DOJ's feeling before the rule was that divestiture was perhaps the most effective remedy. I would gather you still hold that option open if nothing else would seem to materialize that could be effective?

Mr. RULE. Yes, Madam Chairman. Under sort of a theoretical approach, it is clear that divestiture would eliminate a lot of the incentives, and certainly a lot of the ability of carrier-vendors because they would no longer be carrier-vendors, to use the CRS system in a way that inhibits competition.

On the other hand, we recognize that there are problems with divestiture, perhaps the most important being the loss of integrated efficiencies that probably currently exist with the current system.

But it is a remedy that is out there, and if other measures simply are inadequate, then we will seriously consider resorting to that for litigation.

Senator KASSEBAUM. You also mentioned the bias on the secondary screen, which does seem to be apparent to everyone. Do you think that eliminating the secondary screen would be a solution?

Mr. RULE. Well we, in commenting to the CAB, that was a recommendation that we made. We felt that the carrier-vendor should be required to provide an unbiased screen. If it were going to provide other screens, biased screens, it could only provide those of other carriers and not of itself. That would eliminate that sort of incentive for locking in biased screens by the carrier-vendors.

But we felt that an airtight rule was important. We still believe that that is important. However, given that these problems have only recently come to our attention and the rules have only been in effect for a short time, before I make an absolute statement that we would be opposed to secondary screens in all manner and would support a rule to change the current situation, I think we should study it a little more closely before making that statement.

Senator KASSEBAUM. What practical limits do you see in the prices that a vendor charges airlines for participation in the CRS?

Mr. RULE. Well, there certainly are always limitations on what somebody is willing to pay. You could not charge, I do not imagine, $500 per booking to a carrier certainly because a carrier would go out of business. So there are limitations the carrier faces. The carrier is not going to pay more than in effect it can recover in the market by selling flights, and it is a complex series of factors involving consumer demand and supply constraints.

Senator KASSEBAUM. But it obviously does pose a real problem with carriers?

Mr. RULE. It certainly does. Having said all that in the way of the economists who I happen to work with and respect a great deal, the fact of the matter is that if CRS systems do not face a lot of competition, and if carriers have to have access, or view access as very important to a particular CRS, then that CRS in effect can be a price setter and can charge supracompetitive prices to the carrier, which means that the carrier has to pay prices that are above the cost of its actually getting access to the system and that can cause what is known in the antitrust world as consumer welfare harm and is something the antitrust laws and I think these whole rules are designed to prevent.

Senator KASSEBAUM. For instance, what effect does the Apollo system charge have on what Sabre could charge?

Mr. RULE. To some extent I am sure there is a correlation that if Apollo is charging a very low fee, there may be some restrictions on Sabre's ability to charge a very high fee.

On the other hand, if you look at the way CRS's are distributed around the country, what may be very more important than what a national market share is in national competition, is who is the dominant CRS system in any particular locality. If a carrier has a great deal of flights out of a particular locality, he needs to have access to those travel agents. The way he gets access to those travel agents is through the CRS system owned by that travel agent.

Now hopefully some of the nonexclusionary rules have eliminated the practice that occurred in the past where you would see one CRS system having as much as 95 percent of all the travel agents in an area exclusively. To the extent the travel agents have more than one CRS system in their location to choose from, that sort of head-to-head competition might become more viable.

But to the extent that in one city Apollo has 90 percent and Sabre a very small share, and in another city Sabre has 70 percent and Apollo has a very small share, it is hard to say that in those particular cities that competition may be very effective.

Senator KASSEBAUM. Thank you.

Senator Ford?

Senator FORD. I would like to talk about equipment a little bit more with you. Who purchases the equipment for the agent?

Mr. RULE. As I understand it, frequently at least when the movement to sign up travel agents began—and it is probably better to ask some of the CRS vendors themselves—but there were deals that the CRS vendor would provide the equipment under certain arrangements. There were certain deals worked out to get people to sign up. And I think by and large most of the CRS systems invested in the CRT's, the screens, and that sort of thing at the various travel agencies.

Senator FORD. In talking to some, just preliminarily, I understood that the travel agents purchased their own equipment, or have been purchasing their own equipment.

Mr. RULE. Well, there is certainly no reason that they could not.

Senator FORD. You do not know whether they are or not?

Mr. RULE. I do not know that they are not, no, sir.

Senator FORD. Tell me about Apollo and Sabre. I live in Lexington. There are 6,000 employees for IBM. If that does not dominate Lexington, we are in trouble.

Mr. RULE. I thought basketball did, I'm sorry.

Senator FORD. Oh, that is just secondary. We only fill it twice a week with 48,000 fans. They even help the economy in other ways.

And we say airline X, can I as a travel agent buy IBM equipment and tie into an airline's equipment?

Mr. RULE. That would really depend on the particular system, and I do not want to—I am not qualified to speak about the particular technical requirements of a given system.

Senator FORD. You are going to get into that, though, when you say some system dominates. I think if you are going to understand what dominates, then you ought to understand the rest of the system.

Mr. RULE. Well, what we mean by dominate really is the software package, in effect.

Senator FORD. Are you talking about floppy disks, and all that kind of stuff?

Mr. RULE. What I am talking about is the access. I mean, where the real crunch, it seems to me, of a CRS system occurs, where the real work is done, is in the central location where the computer data is processed, stored, and that sort of thing. And in effect, the screens that a particular travel agent has are what is known in the computer industry as peripheral equipment.

Now there may be certain requirements in interfacing the peripheral equipment with the central processing equipment, but by and large most of the hardware and certainly the software that is the essence of the CRS system—that is, the way in which all this data is processed, and that is the software—is contained in a central location and not really in the travel agents locations.

Senator FORD. I think we are dealing with something that may be a little bit hard for the average individual to understand. And since I hope I am average, it is hard for me to understand. Because I have gone into places where they have a certain type of computer, a different brand of printout, lots of things, but they all interconnect; and you go to the store that sells various and sundry brands, an outlet store, all of them, and you pick the things that you like. If they can be in business and put it into your establishment, why cannot an agent go and purchase this equipment and put it in and then connect up, or have it interconnect with the airline's system, or whatever?

Mr. RULE. Well, technically there may be no reason that they cannot. But again, it is the thing that it is interconnected with, the central unit, the software that is run by an Apollo system or a Sabre system, that provides the dominance, that provides the competitive problems that I have discussed this morning, not so much the peripheral equipment that is owned or at least possessed by the travel agents.

Senator FORD. You know, the Senate has several computer systems, and each of us select what we think is best, or who sold us the best. So you have an option. I am not sure that if a fellow does not sell good—you know, Barnum told us there was a sucker born every minute. What he forgot was there were two people who were looking for him.

So, you know, the salesmen are out there and he gets to do it. So it is kind of hard for me to accept that as long as you have got the machinery and the technology, you are going to be dominant; there are others that are going to come along and are going to be better, and so forth.

Let me get into a legal question with you for just a minute, if I may. Let us say if the airline computer reservation industry were totally unregulated and subject only to the general antitrust laws, would the existing market shares of the various companies in the business trigger any kind of Department of Justice or Federal Trade Commission action with respect to unlawful industry concentration?

Mr. RULE. No, sir, it would not.

Senator FORD. It would not?

Mr. RULE. It would not. No, sir. Under section 2 as it is interpreted and well should be interpreted, the mere fact of market power or the ownership of market power is not enough to trigger the antitrust laws that may come about because of superior ability, efficiencies, that sort of thing. It is the use of that market power in such a way as to harm competition that is the subject of the antitrust law, and the things that we uncovered in our investigation of CRS amounted to, in effect, what we believed were abuses of market power. And that is really what our focus has been.

There are times, however, where a structure of a market has the effect of creating such an incentive and such an ability to facilitate market power that the only option is divestiture. That may be the only effective way to eliminate that danger. I do not think we are ready—I know we are not ready to come to that conclusion yet, that that is the case in CRS, because I think there are remedies short of that which may be effective.

But that is the notion, the abuse of market power, not the market power itself.

Senator FORD. Do you take into consideration the whole system for market dominance, not just city by city?

Mr. RULE. It would depend on the particular market you are looking at, the dynamics of competition. To some extent in this area what one is seeing is that a particular CRS becomes dominant because in that city that carrier happens to be the dominant carrier. And a travel agent, if it wants to book on that carrier—and, of course, its clients are going to want to fly on that carrier—it is going to have to have access to that carrier's CRS, particularly if that carrier's CRS gives it better information on the dominant carrier and enables it to get tickets and everything else much more effectively at greater convenience than any other CRS system.

Senator FORD. So if they tie into that system, though, and I say I want the lowest fare possible, and they punch it in and give me the lowest fare possible, then that indicates that they have to respond to my request as a travel agent. And so when they respond to my request, I do not care who it is tied into, A or Z, they still get the same information. And that information has to be there to be afforded that local travel agency, does it not?

Mr. RULE. Yes, sir, that is true.

Senator FORD. So you can say a machinery or a system may dominate, but the information carried in that cannot be, based on my request as the consumer.

Mr. RULE. It is the access to that information and the way that information is presented.

Senator FORD. It does not make any difference in access to that information. I have access to it to answer the question of my consumer. So that accessed information has to be what I need to sell my customer, does it not?

Mr. RULE. Yes, sir, but there is one difference. The way the CRS's work, as I understand it, if there are——

Senator FORD. Have you ever worked a CRS?

Mr. RULE. I have never, no, worked a CRS.

Senator FORD. That makes two of us, so we are on the right track.

Mr. RULE. The way I understand it is that a CRS is—there is certain information that can be provided on what is known as a real-time basis, and there is other information that is only provided on a sort of lag basis. If a carrier vendor has a CRS and a travel agent wants to book a flight on that CRS, the information that is shown on the screen is up to the minute, up to date. The seats that are available shown on the screen are in fact the seats that are available; when a customer makes a reservation, that reservation is made instantaneously in effect in the system.

When the carrier that is being booked on a CRS is a nonvendor, in most cases, the information may not be as up to date. The appearance of the seats on the screen may not in fact be available because of the delay in terms of sending messages from the CRS system to the vendor to the carrier, and then the carrier sending information about its seats back to the CRS. There is that additional link that increases the time lapse between the information shown on the screen and in fact what the true information is, and that could create a disparity in the information that is available on a particular CRS depending on who owns the CRS.

Senator FORD. Well, it just makes sense to me that every time I walk up to an airline counter and begin to look around for other flights, that all that comes up, and it does not make any difference which airline I go to, they have that CRS in front of them, and if they are tied into a specific airline they have the same data as the airline does. It just does not—I am not with you yet.

Mr. RULE. OK, well, I think——

Senator FORD. I am not a lawyer, either, so that scares me a little bit.

Mr. RULE. Yes, sir. I do not think it has anything to do with me being a lawyer, but——

Senator FORD. I hope it does. You had better give us the right information. If not, we will look elsewhere.

Mr. RULE. What you are talking about, as I understand, are internal reservation systems of airlines.

Senator FORD. Well, doesn't the agent tie into that?

Mr. RULE. He can tie into that.

Senator FORD. What do you mean, he can? If the airline wants him to?

Mr. RULE. No. No, sir. What we were investigating in CRS was what is known as an integrated display. What a travel agent would call up, for example you might say I would like to go from Lexington to Washington on March 20 at 10 o'clock.

Senator FORD. It is the 25th and leaves at 8:45 a.m.?

Mr. RULE. All right. Assuming the travel agent is not as informed as you, he would punch that information into the computer and a certain series of flights would show up on the screen. Apparently about six flights or so can show up on any one given screen. You can then go to the second screen, and the third screen, and so forth and so on.

What the integrated display did and does is it takes the information about the flights of all carriers making the trip on that city pair at that time, and presents it to the travel agent. It was a question of the order in which those particular flights in the integrated display were presented to the travel agent that was the issue of bias.

Travel agents had a tendency to use the integrated display and they tended to choose the flight based on the first screens that came up. In other words, the closer you were to the first line on the first screen the greater was the chance that you would be chosen as the flight for a particular customer by a particular travel agent. And that was the concern of bias in the integrated displays.

Senator FORD. Let us get off the machines for 1 minute and let me ask just one final question. Madam Chairman, I apologize for taking so long, but I do thank you for your patience.

Does the Department of Justice believe that the Department of Transportation has adequate legal authority to implement any remedy that has been suggested so far from eliminating secondary bias right up to the complete divestiture? Or is there some limitation on DOT's authority?

Mr. RULE. They certainly have the authority that was transferred from the CAB, which would include the revising of the rules dealing with the secondary bias problem and that sort of thing. To the extent divestiture would be required, I think our preference would be for antitrust litigation and pursuing it that way.

I am not sure that DOT would have the authority to pursue divestiture. I think theirs would be more in the nature of industrywide rules.

Senator FORD. You would pursue it by litigation?

Mr. RULE. Yes, sir, we could pursue divestiture. If antitrust violations occurred, we could challenge those under section 2 of the Sherman Act and seek divestiture as a remedy.

Senator FORD. Well, you indicate that you would have to take litigation in order to accomplish the end result.

Mr. RULE. Certainly under the antitrust laws we would. That is one of the reasons we decided to pursue the CAB remedy because it was capable of doing it through a rulemaking. We were not looking for divestiture at that point; we were looking for industrywide rules, which is something the CAB, now the DOT, has the capability to do, and we felt that was an appropriate avenue to pursue before going through litigation.

Senator FORD. Thank you, Madam Chairman.

Senator KASSEBAUM. Thank you very much, Mr. Rule.

[The statement follows:]

STATEMENT OF CHARLES F. RULE, DEPUTY ASSISTANT ATTORNEY GENERAL, ANTITRUST DIVISION, DEPARTMENT OF JUSTICE

I appreciate the opportunity to appear today to discuss the complicated competition issues presented by airline-owned computer reservation systems (CRSs). As you may be aware, the Department of Justice has spent a great deal of time and resources investigating and analyzing the structure of the CRS market and the behavior of its participants. That study led us to conclude that the CRS market was not performing competitively and that some corrective measures were necessary to protect consumer welfare in that market. While we considered—and continue to consider—bringing an antitrust suit to eliminate the problems, we decided to participate in the CAB rulemaking concerning the CRS industry.

Since the CAB's rules became effective in November of 1984, the Department has continued to monitor the industry. Although some problems have been reported, we believe it is too early to conclude that the CAB—now Department of Transportation—rules are not effective, or cannot be made effective with some modification. Today, I would like to outline briefly our conclusions about competitive problems in the CRS market, our analysis of the potential solutions (including the rules we recommended to the CAB), the rules adopted by the CAB and our criticism of those rules, and, finally, concerns that have been voiced since the rules went into effect.

After almost two years of investigation, the Department of Justice concluded that there were serious competitive problems in the CRS industry, primarily because of the structure of the industry. We determined that CRSs, because of their ability not only to display flight scheduling information but also to reserve seats and produce tickets for customers, did not face competition from other services, such as the Official Airline Guide. Over 80 percent of the travel agent market subscribed to a CRS.

Moreover, because of various contractual provisions imposed by CRS-vendors on travel agents, most travel agencies used only one CRS system exclusively. As a result, CRSs did not vigorously compete with one another and, so long as a particular CRS was used by significant number of travel agents in a city from which an airline (i.e., a carrier) originates flights, it was very important for the carrier to have information concerning its flights on the CRS. Thus individual CRSs, particularly the dominant systems of United and American Airlines, had market power.

Our investigation also indicated that the structure of the CRS market gave carrier-vendors, such as United and American, the incentive and ability to use their market power in the CRS market to extract supra-competitive profits, and to raise the costs of their actual and potential rivals (both other airlines and othe CRS vendors). The structure of the market, in other words, enabled the larger carrier-vendor CRSs (Sabre and Apollo) to exercise and perpetuate market power to the detriment of competition.

First, we discovered that carrier-owned CRSs became dominant in the cities in which the carrier was dominant in terms of enplanements. This is due to the fact that travel agents prefer to use the CRS providing the most accurate data on the carrier with whom they place the most bookings. By providing less accurate data to competing CRSs or by refusing to provide data altogether, a carrier that owns a CRS can seriously inhibit entry by other CRSs into those markets where the carrier is dominant. The CRS that thus becomes dominant could further impede competition and entry by requiring the travel agents to agree to long-term, exclusive contracts.

In addition, a carrier-vendor had the opportunity to earn "incremental revenues" by biasing its CRS to result in greater bookings on its flights than would result if the CRS provided unbiased information. The ability to earn incremental revenues and thereby cover CRS costs allowed the carrier-vendor (particularly dominant carriers for whom the potential incremental revenues were particularly large) to reduce the price of its CRS to subscribers and to inhibit the ability of other CRSs to compete. Lastly, because of the sophisticated software and the paucity of skilled programmers, we found that substantial resources and time were required to enter the CRS market. Thus protected from entry, the CRS carrier-vendor was able to excercise market power against other carriers either by biasing the CRS against them or by charging them monopoly prices for flight displays on the CRS screen.

Our investigation revealed that these concerns were more than theoretical. We uncovered a number of incidents where a carrier-vendor CRS used its market power to impede competition and stymie entry. For example, CRS bias in favor of the carrier-vendor was prevalent, and carrier-vendors had biased their CRS screens against a carrier to retaliate against the carrier's competitive initiatives.

Faced with imminent, substantial loss of airline competition, the Department reviewed all possible alternatives for restoring a competitive airline market as quickly and thoroughly as possible. When, in September 1983, the CAB issued its Advanced Notice of Proposed Rulemaking,[1] the Department saw an opportunity to alleviate the fundamental problems of the CRS industry that we had discovered. We marshalled our evidence and presented it to the CAB to support our strong recommendation that prompt remedial governmental action was essential. We proposed industry-wide rules that we believed presented the best means for correcting the market problems we had identified, while continuing to promote innovation and efficiency in CRS development.

Prior to our filing at the CAB, we had given careful consideration to whether Section 2 Sherman Act monopolization cases should be filed against the carrier-vendors and what relief should be sought if such cases were to be filed. That consideration led us to the conclusion that we should first pursue industry-wide relief via the CAB's rulemaking. We concluded that litigation might require several complex cases in different jurisdictions with potentially different results. Additionally, litigation could take years, postponing resolution of a serious problem that was causing harm to competition in important airline markets. Moreover, even successful litigation against the current dominant carrier-vendors would not have addressed the potential for abuses by other carrier-vendors—present or future—who would not be sued. Thus, at the time of the CAB's advance notice, rulemaking presented a superior alternative for an initial attempt at correcting CRS problems.

During the course of our investigation of the CRS market, we considered whether CRS should be separated—that is, divested—from carrier-owners. The pros and cons

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[1] Advanced Notice of Proposed Rulemaking—Airline Computer Reservations Systems, EDR-466, docket 41686, September 9, 1983.

of divestiture, in fact, continue to be reviewed. Divestiture has certain attractions. It would eliminate the ability of carriers to use their ownership of CRSs to impede entry and competition in both the CRS market and the airline passenger market. The instances of biasing and high access charges to disadvantage competing carriers would likely decrease. A CRS without some profit-sharing relationship to a carrier would not benefit from selective disadvantaging of particular carriers. Moreover, carriers would have an incentive to participate in all CRSs serving the cities from which their flights depart, and new opportunities for competing CRSs would likely result. As a consequence, a market containing optimal CRS service and price levels might very well develop after divestiture, even without ongoing regulation.

On the other hand, we recognized that divestiture is a severe remedy. To the extent that the vertical integration of carriers into the CRS market achieves efficiencies, those efficiencies would be lost as a result of divestiture. While that risk of lost efficiencies, by itself, might not be sufficient to outweigh the benefits of divestiture, it does suggest that divestiture should not be imposed lightly. Moreover, we recognized that divestiture could not be achieved quickly and that some of the competitive harm resulting from vertical integration in the CRS market might be replicated after divestiture by contracts between indepedent CRSs and carriers. Although we were unable to rule out divestiture as a viable, and perhaps ultimately essential, solution to the problems in this industry, we concluded that it was more appropriate to attempt to devise a set of industry-wide rules that would minimize regulatory burdens and preserve efficencies from integration, while minimizing if not eliminating the anticompetitive problems that were uncovered by our investigation.

In attempting to devise industry-wide rules, we had several basic objectives. Our goals were to promote entry and competition in the CRS market in order to dissipate the market power of the current dominant carrier-vendors, to limit the exercise of market power that was distorting downstream competition, and to promote economic efficiency.

To achieve these goals, we recommended a series of rules. We felt that the rules' primary focus should be to eliminate carrier-specific bias, the greatest competitive danger, which gives the carrier-vendor the ability to distort competition in both airline markets and the CRS market. We took the position that the CAB should adopt an air-tight anti-bias rule. However, we recommended against a rule mandating the specific construction of connection displays because such a rule may inhibit technological enhancements to the system. In addition, we urged the Board to require carrier-vendors to make data concerning their flight availability, fares, schedules and rules available to other CRS vendors and to allow ticketing on their flights by other vendors.

Although we saw the possibility that a dominant carrier-vendor could continue to charge competing carriers monopoly prices for access to its CRS, we expressly refrained from proposing any price regulation. The Department generally believes that price regulation may produce inefficient utilization of resources, non-optimal levels of investment, and technological distortions. Price regulation of any sort should be undertaken only as a last resort because the market distortions created by the regulation may be worse than the problems such regulation seeks to correct. Only where price regulation clearly promises efficiency benefits that outweigh its inherent costs and inefficiencies should it be adopted. In the CAB rulemaking, we refrained from proposing a price rule because we felt the prudent course would be to propose rules that promise to dissipate the underlaying market power of American and United. If, over time, market power is dissipated, the ability of these firms to charge monopoly access fees will likewise be dissipated, and we will have achieved more competitive pricing in the CRS market without tampering directly with the price-setting process.

Following its review of the extensive written record established in its proceeding, the Board found that carrier-owned CRSs have substantial market power in cities where they are dominant in the downstream market, that they have the incentive and ability to bias CRS displays and services against other carriers or to charge supracompetitive prices for access, and that entry into the CRS market appears to be both very costly and difficult due to high research and development costs and lengthy and exclusive travel agency contracts. The exercise of this market power by carrier-owned CRSs could raise rival air carriers' costs in the downstream air transportation market, along with costs to consumers in the form of higher airfares and inefficient allocation of air transportation.

In order to remedy these problems, the Board, in July 1984, issued final rules applicable to bias and pricing of CRS services. One essential feature of these rules is to require that carrier-affiliated CRSs provide primary displays that are not biased

against carriers based solely on their identity. A second major feature is the requirement that CRSs not discriminate among carriers in the access price charged for CRS services. The Board also adopted several complementary rules intended to help ensure that these essential features would not be undermined. These rules generally involve display of information and contracts with participating carriers. In addition, the Board promulgated rules relating to subscriber contracts and the distribution of marketing information and service enhancements to other carriers in order to encourage entry into the CRS industry and to prevent CRS vendors from discriminating among carriers in the provision of new services.

Because it was consistent with our basic goals, the Department supported adoption of the relief package developed by the CAB. However, we urged the CAB to modify its rules in several respects. In particular, we thought there were opportunities for evasion of the CAB's rules that were directed at prohibiting bias. We were concerned that the comprehensive non-biased display required by the rules might become, in reality, a "dummy" display that agents would not use. We feared that the CAB's rules would allow the development of "secondary" displays that the agent could easily access and that would be biased in favor of the host. To prevent these kinds of evasions, we had proposed a rule that would prohibit a carrier-vendor from offering a biased display unless the display was that of a carrier other than itself. In other words, our proposed rule would have prevented carrier-vendors from offering as secondary displays either their own internal reservations systems or their biased integrated displays. To our regret, such a rule was not adopted.

We also had opposed the CAB's non-discriminatory price rule. While we recognized that a non-discriminatory price rule has some favorable attributes, including the fact that it may enable small carriers to benefit from the bargaining power of larger carriers who are necesaary for the success of an integrated CRS display, we were concerned that the non-discriminatory price rule might undermine the effectiveness of the anti-bias rule. The non-discriminatory rule would virtually force the vendor to bias against or remove from the system any carrier who refused to pay the stated access charges. If the access charge were set high enough, a significant number of carriers could be subjected to bias. The anti-bias rules, we continue to believe, are the linchpin to improving the competitive functioning of the airline and CRS markets. In addition, we pointed out that even under a non-discriminatory price rule, the access price paid by the carrier-vendor would likely be considerably lower than the price paid by all other carriers.

We considered a number of alternatives to the CAB's proposed non-discriminatory price rule, such as a mandatory access ("zero price") rule that would require CRS vendors to provide, without charge, minimum essential serices to all carriers that meet the technical requirements of interconnection. Such a rule, combined with an anti-bias rule, would force CRS vendors to cover their costs by charges to agents or consumers or to carriers for "enhancements." Even if monopoly charges were shifted in part to agents, presumably raising their costs, agents would seek additional compensation from all airlines in the form of higher commissions. The result would seem to be a form of compensation for the CRSs that would not distort downstream competition.[2] This "zero price" rule appeared, therefore, to be superior to other price rules, but we were unprepared unequivocally to recommend it, since it was not clear that it would enhance economic welfare relative to the absence of any pricing rule.

CAB's rules have been in effect now for about four months. We already have observed some of the problems that we warned might result from the CAB's relief package. One particularly troubling development is the provision by both United and American of "secondary" integrated displays that are biased in favor of their own flights. We have also been told that these secondary displays are easily accessible and that the travel agent or agency manager can lock all the terminals in an office so that only the "secondary" biased screen is available to the selling agent. We have been told that many agency managers do this and that United in particular has aggressively marketed this feature with considerable success to the agents who subscribe to its system. We have also been told that American recently adopted this same strategy.

Other continuing problems have been brought to our attention. For example, we have been told that, despite the rules, bias remains in the primary displays on the systems due to the editing criteria built into the systems for pulling flights for display. Moreover, we have heard that air carriers that do not own dominant CRSs are

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[2] We recognized that if carrier-vendors could price discriminate on the basis of the carrier ticketed by the travel agent, the downstream distortion might nevertheless exist.

severely handicapped in their ability to compete in the discount-fare market because they do not have access to current marketing information that is available only to carrier-vendors on a real-time basis. Specifically, we have heard that in order to maximize revenue on any particular flight, it is crucial that an air carrier manage its inventory of seats to ensure that low-paying discount-fare passengers do not displace higher-paying fullfare passengers. The CRS vendors apparently can more easily manage their inventories due to the marketing data that relates to their own and competitors' particular flights and that is immediately available to them because of their CRS. Their rivals, on the other hand, must engage in ill-informed guesswork based on "stale" marketing data. American and United also can update price schedules immediately, based on their real-time access to their CRSs. To the extent this is true, United and American would have have a clear competitive advantage in the discount-fare arena by virtue of their CRS ownership.

Another discouraging claim we have heard is that United and American have increased their CRS shares since the market share data we submitted to the CAB was gathered. Ultimately, the effectiveness of the rules may be judged by the viability of competing CRSs. Finally, we have been told that the non-discriminatory access fees charged by the dominant carrier-vendors likely reflect monopoly pricing. Thus carriers may well be paying CRS vendors much more than the cost of providing the listings.

We have begun to review these charges and will continue to review all relief options. Should our review confirm that the rules cannot alleviate structural CRS problems, we will consider whether to file Section 2 monopolization cases against the offending carriers.

Before taking that step, however, we should be satisfied that competitive rules are incapable of solving the problems about which we are all concerned. The Department is not convinced that we have yet reached that point. After all, the rules have been in effect for little more than four months, and one should not expect that this or any other set of rules would be perfect. Therefore, we have not been surprised to discover that the existing rules are in need of re-examination. We have begun that process, particularly in the area of the "secondary" biased screen phenomenon. If we conclude that modification of the current anti-bias rule is necessary and desirable, we will petition DOT for implementation of revisions. In addition, we intend to revisit the zero price rule and may consider asking DOT to implement it as well.

Admittedly, it will be very difficult to attempt continually to devise rules for every situation in which the dominant carrier-vendors are caught trying to circumvent existing rules. There is also a danger that rules will inhibit possible technological enhancement of the systems or will retard economic efficiencies. If we conclude that no set of rules can substantially eliminate these competitive problems, other methods of correcting them must and will be pursued. Antitrust enforcement, therefore, is an option we will not hesitate to pursue if that seems to be what is required.

I would be happy to answer any questions you or other members of the Subcommittee may have.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. Mr. Rule, in your testimony, you stated that the Department of Justice continues to consider whether or not it should bring an antitrust suit against the CRS owners. What would it take for the Department to move from the point of considering action to actually initiating it?

Answer. The Department's investigation into airline-owned computer reservation systems remains open because it is not yet clear that the competitive rules imposed last year by the Civil Aeronautics Board will alleviate sufficiently the competitive problems that the Department identified during its investigation. It is difficult if not impossible to predict precisely under what circumstances the government would sue. A suit would be more likely, however, if over a meaningful time period the following were to occur: Continuation of bias, whether through loopholes in the rules or disregard of the rules; supracompetitive pricing of CRS services to competing airlines that has the effect of inhibiting competition in airline passenger markets; no decrease, or an increase, in the CRS market shares of American and United in major metropolitan areas; and no substantial increase in the use of multiple systems by agents. None of these conditions would necessarily be determinative, and other conditions may be considered. In addition, the more dramatic the trends in

these areas, the sooner the Department would be likely to reach a conclusion regarding further action.

Question. Would additional regulations eliminating the biased secondary screen significantly change the Department's position on litigation?

Answer. The concern over secondary screen bias appears to be moot, at least for the present. The Department was concerned when the final version of the CAB rules did not contain a prohibition on secondary screen bias, and we therefore welcome the results of DOT's initiative securing agreement from the vendors to eliminate these displays. We note, however, that the elimination of these screens is voluntary rather than compulsory, and the re-emergence of secondary screen bias would increase the likelihood of an antitrust challenge.

Question. In his testimony, Mr. Kutzke, from Northwest Airlines, discussed the possible option of allowing competing airlines to purchase shares of stock in the airline-owned computer reservation systems. What is the Department of Justice's position on this as an alternative to divestiture?

Answer. In the past, the Department has considered joint ownership by industry members as a solution to competitive problems presented by control by integrated companies of industry products or services such as CRS that can affect competition in downstream markets. Such joint ventures are a potential alternative to complete divestiture in some situations, particularlly when there is reason to believe that there are benefits if industry members operate the facility rather than a third party owner. For example, as described in detail in the Department's 1976 Report on deepwater ports,[1] a remedy was developed where port facilities would be owned jointly by integrated oil companies. Under that arrangement, four conditions were proposed: open access to port facilities; mechanisms for joint venture members unilaterally to expand port facilities; compensation to the original developers for the replacement value of the port facilities; and mechanisms by which ownership shares could change over time.

The Department has not extensively analyzed the potential of such remedies for the CRS industry, and therefore does not currently have a position on this issue. In order to recommend joint venture ownership in the CRS industry, the Department would have to conclude that joint venture ownership represents a superior policy option to divestiture. This decision would require an analysis of the price per share that each non-vendor carrier should pay for ownership in a CRS, which in turn requires estimating the replacement cost and depreciation for each CRS. In addition, the remedy entails the development of certain joint venture agreements relating to access, expansion, service enhancements, and changes in ownership shares over time. Finally, the Department would also have to consider whether a joint venture remedy should be applied to each of the existing CRS's.

Question. Your testimony referred to reports that American and United have increased their CRS shares since DOJ filed its comments with the CAB. What are the current market shares of these two systems?

Answer. The Department does not have market share data that are more current than the data it submitted to the CAB in 1983. The time period covered by that data was the 12 months between July 1982 and June 1983. The Department has received information that American and United have increased their market shares since that time, but that information is qualitative and anecdotal; it is not based on a complete and reliable survey.

The Department of Justice has been in consultation at the staff level with the Department of Transportation, and has suggested that the Department of Transportation collect and monitor CRS market share data so that conclusions concerning the effectiveness of the DOT rules can be based on reliable data. It would be desirable to establish market shares as of the approximate time the rules were implemented, and also at some time in the future so that the structure of the industry under the competitive rules can be evaluated more fully.

Question. In your analysis of the CRS market, did you determine the number of travel agencies that use more than one CRS? What percentage of total agencies have dual systems?

Answer. According to the 1982-1983 data referred to above, automated agencies accounted for 65 percent of all agencies, and 88 percent of all domestic airline revenue. Four percent of the automated agencies have more than one CRS at the same location. This four percent accounted for 12.6 percent of all domestic revenues

[1] Report of the Attorney General Pursuant to Section 7 of the Deepwater Port Act of 1974 on the Application of Loop, Inc. and Seadock, Inc. for Deepwater Port Licenses, November 5, 1976.

booked by automated agencies. Our study revealed, however, that even in locations with multiple systems, agencies tended to use one as the primary system.

Senator KASSEBAUM. The next witnesses are a panel. I do not know if you know who you are: Mr. May, Republic; Mr. Muse, Muse Air Corp.; Mr. Kutzke, Northwest Airlines; Mr. Bakes, Continental Airlines.

Mr. May, I guess we will start with you and go down the table. It is a pleasure to welcome you as president of Republic Airlines.

STATEMENTS OF DANIEL MAY, PRESIDENT, REPUBLIC AIRLINES, INC., MINNEAPOLIS, MN; M. LAMAR MUSE, PRESIDENT, MUSE AIR CORP., DALLAS, TX; PHILLIP BAKES, PRESIDENT, CONTINENTAL AIRLINES, WASHINGTON, DC; WILLIAM KUTZKE, VICE PRESIDENT, AIRLINE PLANNING, NORTHWEST AIRLINES, WASHINGTON, DC

Mr. MAY. Thank you, Chairman Kassebaum and members of the committee.

Let me begin by thanking you for the opportunity to appear here today on this important subject. I suspect that many people, including many Senators, had assumed that whatever problems were raised by airline ownership of travel agents' computer reservation systems were solved by the CAB's rule. That was not the case, and we are grateful for your willingness to look into, and hopefully step into, the large gap that CAB failed to close.

We are not here to ask the committee to referee a competitive squabble, or to tip the scales in favor of one group of carriers or another. Under deregulation, that is the role of the market forces. In the CRS situation, however, market forces are not working and the basic purpose of deregulation is threatened.

The problem is that airline competition is still being profoundly affected by the lack of competition in the CRS business. The findings of the Justice Department and the CAB describe a classic case of monopoly power especially by the large CRS owners, American and United.

In the year ended June 30, 1983, their CRS's together accounted for 70 percent of all travel agent sales and approximately 50 percent of total airline tickets sold within the United States. In dozens of cities, one or the other of the airline systems accounted for 70, 80, even 90 percent or more of all agency sales. All indications are that concentration has increased since 1983.

The CAB and Justice Department also found that these high market shares were accompanied by a variety of abuses, such as refusing to show competitors' fares, censoring messages of competitors, refusing to list the schedules of other carriers who were behaving too competitively, and even calling up passengers booked by other carriers to try to divert them. Those are abuses that were actually uncovered. Because computers leave no tracks, we have no idea what else might have occurred.

The ability of the big CRS owners to injure competitors stems from the fact that, as a general rule, if you want to be in the airline business, you have to sell seats through either Sabre or Apollo. To do that, other airlines have to deal with American and United on whatever terms the large airlines dictate. There are no contract

negotiations. It's take it or leave it. In Republic's case, we would not have lasted more than 30 days without bookings on Sabre and Apollo, so we took it—despite the huge fee increases that were entailed.

That kind of raw monopoly power continues despite the CAB rules. Although there have always been grave doubts as to whether the CRS problem could be solved by regulation, we had hoped something effective would be done about it. The CAB did adopt some regulations, but the situation today is worse than it was before the regulations took effect.

In fact, many of us have come to the conclusion that it is impossible to neutralize the marketpower of the CRS owners by regulatory action, and that the only effective course is simply to prohibit ownership of a CRS by an airline. This can be accomplished either by sale or spinoff to existing stockholders. Neither course need involve economic hardship or unfairness. Think of it this way: If Apollo and Sabre were owned by nonairlines, is there even the slightest chance that under the antitrust laws United and American would be allowed to acquire them? I think not.

The heart of the current problem is the ongoing and uncontrollable process by which CRS's transfer economic strength from other airlines to CRS owners. There are two basic transfer mechanisms involved—booking fees and so-called incremental revenues. Let us look at what has happened to each since regulation began.

First, booking fees have skyrocketed. On November 14 booking fees paid by Republic went up dramatically—over 500 percent in the case of Sabre. The total increases will add about $12 million a year to our costs. That would have amounted to a reduction of 40 percent on our 1984 net profit.

There has been no explanation from the CRS owners of how increases like this can possibly be justified. The materials we and 10 other airlines are jointly submitting for the record here include a study which examines how such increased fees, totaling close to $250 million for all carriers, could be justified.

The study concludes that they cannot be. These prices increases are, in fact, nothing more than an attempt to collect directly from other airlines the monopoly revenues from display bias that the CAB supposedly prohibited in its regulation.

I assume American and United will attempt to justify their price increases with estimates of the "stand alone" costs of their CRS system. I urge you to examine them with great skepticism, especially since Apollo and Sabre are not operated as stand alone products. They are still an integral part of the carriers' distribution systems, and they are still the cause of a substantial shift of incremental revenues to CRS owners from their competitors.

Let us look at how incremental revenues are still being earned. First, of course, there is display bias. The CAB purportedly outlawed it. However, United and American have found a loophole—so-called secondary displays—which are even more biased than the displays outlawed by the CAB. Travel agents are given various incentives to use those secondary displays and have the ability to lock in their CRS screens permanently on the biased display.

A substantial portion of bookings are being made on biased secondary displays. Figures given us by United, for example, indicate

that in December 1984 the first month the rule was in effect, a quarter of our Apollo bookings were on the biased display. I take it the same was true for other airlines, and probably that percentage has increased.

Last December, a dozen airlines plus the Regional Airline Association complained to the CAB about this obvious evasion of the bias rule. DOT appears to be fully aware of it. For some reason, however, no action has been taken. Meanwhile, we estimate that several hundred thousand passengers a month are being captured by CRS owners through that display bias.

Even if the secondary display loophole is closed, there are always other ways CRS vendors can use their market power to draw traffic away from competitors. For example, there is hidden bias, a term that covers a multitude of competitive advantages and opportunities that are available only to a CRS owner. Examples are spelled out in a study by James Harding, included in our joint submission.

We are not here charging any airline with any particular practice. The essence of the problem is that the evidence of it is often hidden. As the Justice Department put it,

> One proposition cannot be doubted: Apollo and Sabre possess the ability deliberately to misinform travel agents regarding the services of competitor airlines in a manner that makes it very difficult to determine whether their conduct was deliberate or accidental.

Given the past record of these CRS owners, and their ongoing incentive and opportunity to continue these practices, it would be naive to assume that they have come to an end.

A third and equally important source of incremental revenues comes from the unfair marketing edge that CRS ownership gives to a carrier. The CAB rule barely scratched the surface of this problem by requiring CRS owners to sell the marketing data they generate. The CRS owners have complied by offering raw data at very high prices.

Meanwhile, the CRS owner, on a realtime basis, can monitor its sales and its competitors' sales on particular flights, in particular markets and in particular travel agencies. With that information it is in a position to make immediate changes in fares or capacity and adjust other marketing resources long before competitors can even guess what is going on.

On top of this, there is the booking preference that results from the live-in relationship, sometimes called halo effect, which Sabre and Apollo create with travel agencies. This relationship is reinforced by certain practical advantages to an agent who books on its CRS vendor, for example, instantaneous readout on seat availability, and immediate seat selection for boarding passes. Both advantages stem from the fact that the internal reservations system of the CRS owner is the only such system which is fully integrated with the CRS used by the agent.

These inherent features of CRS ownership have tended to preserve a substantial portion of the preregulation bias toward the CRS owner. The ultimate effect is no different than display bias. As we know, it is the consumer who ultimately pays for bias by taking less convenient or more expensive flights than were avail-

able. The bottom line is that millions of consumers are still paying that price.

This ongoing bias toward CRS vendors also reinforces the current trend toward a less competitive airline industry. As CRS owners acquire an increasing share of travel agency sales, they increase their domination of airline markets.

This in turn increases their ability to leverage more agency sales toward themselves. Under that scenario, what was once an independent travel agent distribution system is gradually going to become a captive of the CRS vendors. And what was, at the start of deregulation, a vigorously competitive airline industry will have worked its way back to the kind of oligopoly, or worse, that deregulation was supposed to get rid of.

I wish we could conclude that either market forces or CRS rules would solve this problem. It is clear that market forces won't work because the barriers to new entry into the CRS business are extremely high, as both DOJ and

As for regulation, it has failed even more than we had feared, and there is no reason to be hopeful for future regulation. Even if we had an army of dedicated enforcement agents and cost accountants, the various unseen ways in which CRS power works makes it almost impossible to control.

Before I conclude, there is one other issue I want to address briefly. I assume American and United will tell you that the CRS problem is one the Government should stay out of. They will attribute their success in the CRS market to their own resourcefulness and ingenuity, and urge that in the laissez-faire tradition they be left alone.

Without disparaging their skill and ingenuity, I ask you to bear in mind that the major carriers control CRS's because they are major carriers who have had the resources to initiate their own CRS systems. Please recall that it was regulation that helped make them major carriers. Their CRS's are, to a large extent, a legacy of regulation rather than a model of free enterprise. That legacy now threatens deregulation itself.

Finally, focus again if you will on the person whom this whole process is supposed to benefit: the consumer. Despite the issuance of regulations, the consumer misinformation process goes on, more subtly, but just as relentlessly. The assumption behind a deregulated industry is that consumers will have competitive choices and will know what they are. In both respects the consumer will continue to be the loser unless Congress deals with the CRS problem.

In closing I would like to ask that the committee include in the record [1] a document which we are submitting along with 10 other airlines entitled "A Critical Look at Airline Control of Computer Reservation Systems. Thank you.

Senator KASSEBAUM. Thank you, Mr. May. That will be made a matter of record by reference.

[The following information was subsequently received for the record:]

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[1] The document has been retained in the Committee files.

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. If divestiture is the solution to the problems you discussed at the Subcommittee hearing, it is likely to take a great deal of time to finalize. What would you propose as the short-term remedy to CRS problems you are now encountering?

Answer. The only available short-term remedy would be to try to strengthen the CRS rule to minimize continuing abuses by the vendors. More stringent anti-bias rules are required, as demonstrated by the "secondary display" episode. Although difficult to enforce, a prohibition against vendors accessing marketing information not equally available to competitors might help. The rule should eliminate the enormous cash flow advantages enjoyed by a vendor. Most importantly, the rule must address the monopoly pricing of CRS access fees, probably the single greatest existing threat to deregulation. This would not necessarily require direct price regulation. Other options, such as compulsory arbitration of fees based on decisional criteria fixed by law or regulation, are also possible.

It must be emphasized that these measures would, at best, be only palliative. There are no adequate means of enforcing rules against computer abuses or keeping up with the opportunities to create new abuses not contemplated by existing rules.

Question. If the Committee were to pursue divestiture, who would operate the independent system? Given all this talk of divestiture, has any group, travel agents or otherwise, come forth expressing an interest in taking the airlines' CRS's over?

Answer. The most likely source of operators for the new systems would consist of those persons operating the present systems. Any form of divestiture would have to permit a spin-off of the existing systems to the public shareholders of the airline vendors, e.g. Apollo would be separated from United and given to United's shareholders. Much of the management and staff of Apollo might continue, but it would be separate from the airline and neither United nor Apollo would enjoy the monopolistic advantages that presently characterize these systems.

In addition, if there were divestiture, there are a large number of companies in the communications, computer and other service industries that should be considered as potential entrants into the CRS industry. This would be accomplished by purchasing an airline system or starting a new one. The chances for such new entry depend on what happens to existing barriers to entry. A major barrier to entry would disappear if divestiture were ordered because airline vendors would no longer have an incentive to withhold their seat availability from new CRS entrants. Another barrier would fall if CRT hardware were compatible with the software of any CRS vendor. Given the existing barriers, however, especially the well documented refusal of existing vendors to make their schedules and capacity available to new entrants, there is little reason to expect new entrants to come forth.

Question. In his testimony, Mr. Kutzke stated that the key issue surrounding the CRS dispute is that it is between the very large and the smaller airlines. Republic is one of the nation's major air carriers. Why, either today or in the past, have you not decided to develop and market your own CRS?

Answer. At the close of 1978 when deregulation began, there was an enormous imbalance in the industry. American and United not only generated one-third of domestic revenues, each had cash and short-term investments of more than half a billion dollars, 54% of the industry's liquidity. Republic was a subsidized local service airline with limited route authority.

Developing CRS's was a relatively easy step for the large air carriers. The modest risks involved were balanced against the potential gain—the consolidation of their prederegulation market power. The remaining members of the "Big Five" group of carriers—Delta, Eastern and TWA—soon followed, and by te early 1980's the CRS marketplace was totally preempted by the largest airlines.

The cost of developing a CRS today consists only partly of the hardware and programming costs. These would be substantial but in many ways the more imposing costs would be in attempting to market a new CRS. The ability of a carrier to market a CRS system is substantially related to the amount of service it offers in that area and on whether it gets there first. Thus, TWA, Eastern and Delta have been successful in their major hubs but not nationally because of the earlier national marketing of American and United, carriers which also have a somewhat larger national market presence. In the case of Republic, which is both a smaller and newer carrier, the cost of paying travel agents to switch from Apollo or Sabre, assuming it to be possible at all, would be prohibitive.

Another near insurmountable problem for Republic would be the risk— indeed, virtual certainty—that existing CRS vendors would not make their schedules and capacity available for display. This means that Republic would start with a system that was missing 55% to 60% of the airline service in the U.S. This is why both the

CAB and the Department of Justice found the barriers to entry in the CRS industry are so high that "entry into the CRS industry is not only difficult but indeed may well be impossible for all but the largest carriers that already provide CRS systems."

To put the foregoing in perspective, it is useful to focus on the degree of concentration remaining in the U.S. airline industry. Republic, for example, is a "major" airline according to the official definition. Yet it is "small" in comparison to the industry giants. In the first two months of 1985, United and American's shares of industry revenue passenger miles were, respectively, 15% and 13%. Republic's share for that same period was less than 3%. A recent published quote from Dr. Alfred Kahn, former Chairman of the CAB, was cited in our joint statement and is worth repeating here, i.e., his "principal disappointment (about U.S. deregulation) and concern relates first to the apparent evolution of the U.S. industry in the direction of a tight oligopoly, with the American's, Delta's and United's apparently clearly able to survive."

Question. Would you please tell the Committee how booking fees for Republic changed with implementation of the CAB rules?

Answer. The old and new fees are set forth below:

FEES PER BOOKING

	Old fee	New fees
American	$0.35	[1] $1.76
United	1.00	1.85
Delta	0	.75
Eastern	.75	[2] .98
TWA	.75	1.75

[1] $1.75 for full availability; $2.00 for total access; average based on actual experience.
[2] $.75 for full availability; $1.00 for direct access; average based on actual experience.

All of the old fees were protected by long-term contracts, contracts which were abrogated by the CRS vendors. The new fees have increased the total fees paid by Republic by approximately $1.2 million each month, an increase of nearly 300 percent. In the case of American, Eastern and TWA, the new contracts permit the fees to be increased this December. In the case of United and Delta, they may increase the fees at any time by giving one month's notice.

The fees quoted above assume that the billing information given Republic by the CRS vendors accurately reflects bookings. However, as Northwest has advised the committee, the CRS vendors may be overstating other airline bookings by a substantial amount which means that the actual fees per booking are even higher. In all events, in light of no-shows, the CRS fees per passenger boarded are considerably higher than the fees per booking.

Question. The Committee has heard much about dirty tricks and the potential for abuse in the input of schedules and fare changes of the other airlines. Are there any concrete examples that can be brought before the Committee now? What would you consider to be possible remedies for this alleged problem?

Answer. The investigation of the Department of Justice turned up numerous examples of "dirty tricks." Republic, itself, found a United marketing memo that discussed a number of "dirty tricks," including using Apollo to, in effect, cause Republic to pay override commissions to travel agents for their increased use of United.[1] Because it has no access to a CRS vendor's computer and because computers leave no tracks, Republic has no way of determining what "dirty tricks" are actually being played. As the Department of Justice has found: "Apollo and Sabre possess the ability deliberately to misinform travel agents regarding the services of competitor airlines in a manner that makes it very difficult to determine whether their conduct was deliberate or accidental."

There is only one remedy for this abuse and that is to deny the vendors the opportunity to engage in "dirty tricks" by prohibiting airlines from controlling CRS's. Airline control of CRS's creates both an invisible hand, and the incentive to use it against competition. Regulations are completely ineffective against such abuses.

[1] Several pages from this memo setting forth a "Bag of Tricks" was included as Exhibit E to the memorandum submitted to the committee by Republic and 10 other airlines. United claims that it has not followed the policies set forth in the memo.

Question. Can incremental revenues, gained on flight bookings on the CRS owner's airline, be controlled by any means short of divestiture?

Answer. As discussed in the answer to question number 1, a tough regulatory approach might lessen the incremental revenue flow to the vendors on a short term, transitional basis. In the long term, however, it is impossible to design a set of regulations that would be effective.

QUESTIONS OF SENATOR EXON AND THE ANSWERS

Question. In order for you to make reservations for customers or travel agents who call you on the telephone, you have to hire reservations agents, acquire the necessary telephone equipment, lease space for reservations offices, and do a number of other things that cost money. When you aggregate all these expenses associated with telephone reservations, how much does it cost you per telephone reservation?

Answer. The cost to Republic of making a direct telephone reservation is approximately $7.90. Of this amount, we estimate that approximately $.25 is the cost of providing the computer inventory of reservations and related communications cost. The balance is the cost of reservations personnel and their overhead including space and other facilities.

When a booking is made on Republic through a CRS, Republic pays a booking fee of $1.75–$1.85 for a function that is not substantially different from what Republic's own reservations computer does for $.25. Moreover, bookings made through a CRS must still be processed by Republic's reservations computer at a cost which is only slightly less (because of lower communications expense) than a direct reservations call to Republic. In addition, a commission is paid to a travel agent on each CRS sale. Assuming a 10% commission on Republic's average ticket of $96, this commission cost would be $9.60. The CRS fee and internal computer cost add approximately $2 to this, producing a total cost for the sale of an average ticket through a CRS of approximately $11.60.

Senator KASSEBAUM. Mr. Muse, it is a pleasure to welcome you as President of Muse Air Corp.

Mr. MUSE. Madam Chairman, I will paraphrase my statement somewhat in order to keep it within the allotted 5 minutes.

In that connection, I will mention the word bias one time. I have done that.

I am Lamar Muse, and I am chairman and chief executive officer of Muse Air. Muse is one of the postderegulation carriers which the Airline Deregulation Act was designed to foster. I was also the initial CEO of Southwest Airlines, which was the principal prototype for the deregulation movement back during the 1970's.

I was an early and vigorous supporter of deregulation, as I am today. In my opinion, deregulation has increased competition, which has benefited both the airlines and the traveling public in many ways. However, the failure to deal forthrightly and effectively with the computer reservation system problem has limited the effectiveness of deregulation and, if not brought under control, may effectively negate the many benefits of this historic legislation.

Muse Air is just one airline that uses the computer reservation systems owned by American and United Airlines, systems called Sabre and Apollo respectively. Every airline of any consequence in the United States has to use Sabre and Apollo or be forthrightly and unceremoniously disconnected from travel agencies producing over 50 percent of most airlines' revenue.

I can think of no example which better fits the textbook definition of a true natural monopoly. History tells us that monopolies generally need assistance in determining what a fair rate for their service or product should be. Normally a monopoly is an industry itself providing a service, such as local telephone service, lights,

and power, or natural gas, to the rest of the population at rates set by public bodies designed to provide a fair return on invested capital.

Not so with the absolutely true monopolies represented by Sabre and Apollo. They are a monopoly owned by the principal and predominant members of the population itself, the airline industry. They have total, unbridled freedom to charge the remainder of that industry any rate per transaction transmitted through their CRS's that they, the competitors of their own customers, choose to charge.

In the infinite wisdom of the owners of these monopolies, American has set a standard rate of $1.75 per Sabre transaction, while United has set a rate of $1.85 per Apollo transaction. I suppose that is designed to eliminate any nasty talk about price fixing and oligopoly. Even American's own figures indicate a cost of only 52 cents a booking. But American charges all its competitive carriers $1.75. That is quite a markup.

In this connection, we understand that the American bureaucracy brags to their board of directors that the return on their Sabre investment exceeds 500 percent per year. A 15-percent return on investment is acceptable; 30 percent is outstanding; but 500 percent? That defies description.

The 75 cents charged per transaction by Delta's Datas II certainly indicates that there is sufficient merit to our claim to justify some investigation by someone. I know of no other business situation where the two largest companies within a very competitive industry have it within their arbitrary power to drastically reduce or eliminate their own overhead through their monopolistic charges while simultaneously expanding their competitors' overhead to the point where they just are no longer competitive, with absolutely no alternative on the part of the competitive carrier.

If Congress fails to act, and if our pending antitrust actions should be ineffective, there is no limit to what American and United could charge. These hearings are considering the desirability of forcing divestiture of the CRS's from their present owners. Personally, I cannot see that that even addresses the real problem—which is rates.

American and United primarily conceived, developed, and perfected these miracles of modern technology and, in my opinion, are entitled to their many benefits. However, because they are true monopolies, the rates charged to their competitors in the same industry for essential services must be regulated.

If Congress is concerned about the continuation of a highly competitive industry, then you must address the tools with which American and United will destroy the industry as it is known today.

Those tools are: The Sabre/Apollo club and the tax-free frequent flyer programs under the trade names of Mileage Plus and AAdvantage. These programs have served to make mileage junkies out of otherwise normally intelligent businessmen at the incalculable cost of hundreds of millions of dollars to the Federal Government, which is all of us, for the sole benefit of the approximately one million frequent flyers and American and United.

Thank you for your time, your attention, and your interest.

[The statement follows:]

STATEMENT OF LAMAR MUSE, CHAIRMAN OF THE BOARD OF DIRECTORS AND CHIEF EXECUTIVE OFFICER, MUSE AIR CORPORATION

My name is Lamar Muse. I am Chairman of the Board and Chief Executive Officer of Muse Air Corporation. Muse is one of the post-deregulation carriers which the Airline Deregulation Act was designed to foster. I was the initial chief executive officer and a founder of Southwest Airlines, which was the principal prototype for the deregulation movement back during the 1970s.

I was an early and vigorous supporter of deregulation, as I am today. In my opinion, deregulation has increased competition, which has benefited both the airlines and the traveling public in many ways. However, the failure to deal forthrightly and effectively with the Computer Reservations System (CRS) problem has limited the effectiveness of deregulation and, if not brought under control, may effectively negate the many benefits of this historic legislation.

Muse Air is just one airline that uses the Computer Reservations Systems owned by American and United Airlines, systems called Sabre and Apollo respectively. Every airline of any consequence in the United States has to use Sabre and Apollo or be forthrightly and unceremoniously disconnected from travel agencies producing about 80% of the domestic revenues of automated travel agencies. Travel agents book some 65% of the industry's reservations. The remaining 35% of the reservations are made directly by the airlines.

I can think of no example which better fits the textbook definition of a true natural monopoly. The history of the world tells us that when a true monopoly situation exists, the entities who own and control that monopoly generally need assistance in determining what a fair rate for their service or product should be. In other words, rate regulation by a public body interested in the walfare of all the users.

Normally, a monopoly is an industry itself providing a service, such as local telephone service, lights and power or natural gas, to the rest of the population at rates set by public bodies designed to provide a fair return on the admittedly monopolistic utilities invested capital.

Not so with the absolutely true monopolies represented by Sabre and Apollo. They are a monopoly owned by the principal and predominent members of the population itself, the airline industry. They have total unbridled freedom to charge the remainder of that industry any rate per transaction or booking transmitted through their CRSs that they, the competitors of their own customers, choose to charge.

In the infinite wisdom of the owners of these monopolies, American has set a standard rate of $1.75 per Sabre transaction, while United has set a rate of $1.85 per Apollo transaction. I suppose that is designed to eliminate any nasty talk about price fixing or oligopoly. Even American's own figures, which are no doubt overstated, indicate a cost of only 52 cents a booking. But American charges all its competitive carriers $1.75. That's quite a markup. In this connection, we understand that the American bureaucracy brags to their board of directors that the return on their Sabre investment exceeds 500% per year, and that was before they started charging many of tne larger carriers these tremendous fees. A 15% return on investment is acceptable, a 30% return on investment is outstanding, but 500%? That defies description.

The 75 cents charge per transaction by Delta's Datas II, certainly indicates that there is sufficient merit to our claims to justify some investigation by someone.

I know of no other business situation where the two largest companies within a very competitive industry have it within their arbitary power to drastically reduce or eliminate their own overhead through their monopolistic charges while simultaneously expanding their competitors' overhead to the point where they are just no longer competitive, with absolutely no alternative on the part of the competitive carriers.

If Congress fails to act and if our pending antitrust actions should be ineffective, there is no limit to what American and United could charge. They could raise their rates to $3, $5 or even higher until only the CRS vendor airlines could afford to do business through the travel agencies who write 65% of the tickets in this industry. These hearings are considering the desirability of forcing divestituture of the CRSs from their present owners. Personally, I don't see where that solves the full problem and certainly doesn't even address the rate problem. American and United primarily conceived, developed and perfected these miracles of modern technology and are entitled to their many benefits. However, because they are true monopolies, the rates charged to their competitors in the same industry for essential services must be regulated.

If Congress is concerned about the continuation of a highly competitive industry, including the mavericks such as the Muses, the Peoples Expresses, the America Wests and even the more established carriers such as the Pacific Southwests, Air Californias and Republics, as opposed to an oligolopy composed of American and United together with such fortresses as Delta, Northwest and Southwest, then you must address the tools with which American and United will destroy the industry as it is known today. Those tools are the Sabre/Apollo club and the tax free travel bonus frequent flyer programs under the trade names of Mileage Plus and AAdvantage. These programs have served to make mileage junkies out of otherwise normally intelligent businessmen at the incalculable cost of hundreds of millions of dollars to the Federal government, which is all of us, for the sole benefit of the approximately one million frequent flyers and American and United.

Thank you for your time, your attention and your interest.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. Can you estimate how much more consumers spent in 1984 for air travel due to the effect bias had on inhibiting the sale of the lowest fare?

Answer. Unfortunately, I cannot tell you at this time how much more consumers spent in 1984 for air travel due to the effect bias had on inhibiting the sale of the lowest fare. There have been estimates of how much additional revenues American and United have gained as a result of bias and the amount is quite substantial. American and United themselves estimated the incremental revenues to be as high as 13 percent to 15 percent. These are revenues from passengers who would have taken a different flight if the screen had not been biased. They include both traffic diverted at similar fares from other airlines, as well as traffic diverted from lower fare flights. However, so far as I know, no one has broken that amount down to determine how much of it is due to bias inhibiting the sale of the lowest fare. It should be noted that the passenger who takes a different flight because of bias may not only lose money because of a higher fare but may also lose the value of his time by taking a slower or less convenient flight.

Question. Would you please tell the Committee how booking fees for Muse changed with the implementation of the CAB rules?

Answer. When we initially began operations in July, 1981 there was no charge for our being hooked into the Sabre system. When we started flying to California, American advised us that in the future each and every transaction through Sabre would cost us $2.00. Since we had reason to believe that their transaction cost was a small fraction of that amount, we resisted this in every possible way. After much haggling, we agreed to pay 50 cents per transaction for a period of time, but with the provision that the rate would go to $2.00 after some months. Therefore with the implementation of the CAB rules in late 1984, our fee actually reduced from $2.00 to $1.75 per transaction. However, the rate per booking on Apollo went from $1.50 to $1.85 after the CAB issued its rule. All that the CAB rules did was to prohibit American and United from raping only a few small defenseless carriers as opposed to raping the entire industry, other than themselves.

Question. The Committee has heard much about dirty tricks and the potential for abuse in the input of schedules and fare changes of the other airlines. Are there any concrete examples that can be brought before the Committee now? What would you consider to be possible remedies for this alleged problem?

Answer. At the outset I would note that it is important not to divert the attention of Congress and the Department of Transportation from the real problem which is the uninhibited ability of American and United to charge the remainder of the industry any amount they see fit for their monopoly communication service to the travel agents of this country. Nevertheless, we have a number of complaints about the CRS system:

(a) Whan an agent requests information on flights at Dallas (DFW) Sabre does not show the Muse flights at Dallas Love Field until it has shown all the direct and connecting flights serving the Dallas/Ft. Worth Regional Airport, which American serves. Thus, the Muse flights may not show up until the third screen. Since about 90 percent of the flights are booked from the first screen, a travel agent is not likely to see the Muse schedules unless he specifically requests the screen for Dallas Love Field which requires the entry of a different code.

(b) The vendors bill us for millions of dollars for bookings but there is no way we can check the accuracy of the billing. For example, we have frequently been billed by United for a booking such as Mexico City-Tijuana even though Muse does not serve either city and, or course, provides no service between them. This makes it clear that there are errors in the billings but there is no way we can check the billings for segments which we do not serve. We are forced to pay the bill on blind faith. This is frightening because of the huge sums of money involved.

(c) It is my understanding that American loads its fare changes into Sabre immediately while it takes as much as five days for it to load the fare decreases of other carriers. This gives American a marked advantage in fare competition.

Question. At the hearing, you indicated that divestiture may not be the answer to the current CRS situation, especially in terms of relief for high booking fees. Do you support further regulation over divestiture? If so, what particular changes would you propose to make?

Answer. I am glad you noted that I totally disagree with the position that divestiture is the solution to all the problems. Divestiture does absolutely nothing for the price problem. In fact, if the CRS systems are allowed to be sold at a very high price which is based on monopoly power and profits, divestiture would only assure continued absurd rates for the services received from Sabre and Apollo while American and United laughed all the way to the bank with their huge capital gains. Moreover, American and United would derive income from the capital they received from divestiture and that income would be quite comparable to that derived from the sale of Apollo and Sabre. Thus they would in effect continue to enjoy the monetary benefits of monopoly power even after divestiture.

Of course, divestiture could be accomplished by a spin-off which would avoid the problem of the amount paid for the CRS. However, there still would be the problem of monopoly pricing so that the fees charged the airlines must be regulated. Therefore, if Congress orders divestiture, it must also require that the rates charged by the purchasers be reasonable. In other words, the rates charged for the use of Computer Reservation Systems must be regulated, with or without divestiture.

Three actions are, in my view, absolutely essential. First, we need to be able to get a handle on what the true costs of Sabre and Apollo are. We have our economists studying that question and should be able to report to you on it in the near future. In any event, Congress should require AMR Inc. and UAL Inc., the American and United holding companies respectively, to split out the Sabre and Apollo operations from their respective airline's subsidiaries into separate subsidiaries. This would make it easier to examine their cost and revenue allocations to determine if they are reasonable.

Second, the respective carriers, American and United, should be required to pay their computer subsidiaries the same booking fees that the rest of the industry is required to pay.

Third, some government agency should analyze the results of the subsidiaries operations to determine what would be a fair charge for its services to the carriers who cannot exist without the communications hookup. If the Department of Transportation is unwilling to undertake this task, as it seems to be, perhaps the Federal Communications Commission should do it because the CRS systems are quite similar to local telephone company monopolies.

Question. Mr. Muse, in your statement, you alluded to one other problem affecting the airline industry today, besides the CRS situation. Can you please expand on this?

Answer. I sincerely appreciate the opportunity to expand on what I consider to be the largest illegal tax shelter operating today in this country, that being the Frequent Flyer Programs of American and United respectively known as AAdvantage and Mileage Plus. The 1984 tax revision act clearly makes the benefits received by frequent flyers and used for their personal account taxable income; the IRS publicly admits that such frequent flyer bonuses are taxable income; and finally, up to this point they have absolutely refused to do anything about it. To give you more detail on my position on this matter, I attach two letters dated February 13 and March 21 addressed to the Commissioner of Internal Revenue, Mr. Roscoe Egger, neither of which have even been answered to this date.

I think I can bring home my point by citing this hypothetical example. The XYZ Corp. builds Widgits out of steel. The purchasing agent makes a deal with a major steel company to buy all of their steel requirements irrespective of cost or quality from that firm, provided that at the end of each month they mail him personally a check for 5% of the purchases made during such month. Similarly, the general sales manager is on the road constantly in an effort to sell all the Widgits that are

coming out of their plants. He flies hither, there and yonder, stays in $200 a night hotel rooms (only those tied in with AAdvantage and Mileage Plus), rents cars at each destination (again from only those who cooperate) and entertains potential purchasers of Widgits at $50 to $100 dinners and luncheons.

Three things eventually happen to the poor purchasing agent who did not even travel one mile or get any of those fancy trips or meals. He gets fired, he goes to jail and the IRS is on his tail for back taxes, plus penalty and interest. In marked contrast, the general sales manager gets tax-free trips for his family, for his friends, and for strangers who purchase the tickets from businesses which have been established to handle these bonus tickets; he gets a pat on the back and a smile from the chief executive officer for having to spend so much time away from home and the IRS says "so what."

QUESTIONS OF SENATOR EXON AND THE ANSWERS

Question. If I were a consumer calling a travel agent that used either Apollo or Sabre and I called with a simple request—I want the lowest fare between points A and B—would I be more likely to be booked on one of your airlines or on American or United? In other words, do these systems accurately tell me the true lowest fare available?

Answer. Flights are not arranged according to fares but according to the time of day. Therefore, the lowest fare might be on the third or fourth screen and about 90% of the bookings are made from the first screen. Moreover, as noted earlier, Sabre does not automatically show Muse Air's flights at Dallas Love Field when an agent requests service at Dallas (DFW). Therefore, there is a tendency for an agent to book passengers on American even where Muse has the lowest fare.

Question. Can a travel agent make CRS bookings on both Muse Air and Southwest Airlines? Since travel agents can book on Muse, but not on Southwest, if the CRS systems are so essential, why doesn't Muse have a strong advantage over Southwest? Why is it that Southwest seems to prosper despite the fact that travel agents cannot make bookings on it?

Answer. It is a total misconception that Southwest is not in Sabre. Southwest's schedules are listed in Sabre and computerized travel agencies have the availability to write tickets on Southwest through Sabre. The only thing that cannot be done through Sabre is the actual making of a reservation. They must make a phone call to do that. This is because of the very limited capacity of Southwest's reservations computer system.

Until very recently, Southwest received the service mentioned above totally free of charge from American Airlines. Some months ago, however, American advised Southwest that effective on a certain date each ticket issued on Southwest through Sabre would cost Southwest $1.00. Southwest resisted this charge and actually called their bluff in the belief that with American Airlines being in so much trouble with the CAB concerning their Sabre system they would not jerk their schedules and ticketing ability from the system. Finally, Southwest was advised that if they did not sign an agreement providing for payment of $1.00 per transaction, American Airlines would remove their schedules and ticketing abilities at 5:00 p.m. on a Friday afternoon and so advised all the travel agencies the day before. The hue and cry was so severe, I understand, and the immediate reduction in Southwest's business was so drastic that the executives of Southwest spent that Friday evening at American Airlines' headquarters negotiating the final agreement to maintain their presence in Sabre at American's figure of $1.00 per transaction.

It was this particular instance which I had in mind at the top of page two of my testimony wherein I stated that "every airline of any consequence in the United States has to use Sabre and Apollo or be forthrightly and unceremoniously disconnected from travel agencies."

Southwest has been in business for 14 years while Muse Air has been in business less than four years. Southwest is a financial fortress and has built a large army of users who are creatures of habit and extremely difficult to convert. Southwest serves many, many more markets that does Muse Air and is thus able to handle more of the travel requirements of potential customers and provide self-feed for their flights to a much greater degree than Muse Air. In markets where we compete directly Southwest out-schedules Muse Air with much higher frequencies, thus adding to the convenience of travel.

Finally, Southwest is a damn good airline, but Muse Air is better. Even though Southwest has many more flights in given cities than does Muse Air, on an individual agency basis you will find very few agencies which do not make more ticket

sales on Muse Air than they do on Southwest and in every case when you factor in the available seats, we come off with two to three times as much traffic as Southwest.

Senator KASSEBAUM. Thank you very much, Mr. Muse.

Mr. Bakes, it is a pleasure to welcome you as president of Continental Airlines.

Mr. BAKES. Thank you, Madam Chairman, and other members of the subcommittee, for the opportunity.

Let me say that it is very much an opportunity, but despite that it is not an unmixed blessing. It is not easy or necessarily pleasant to come before the subcommittee and have to use such strong charges, however justified they may be and they are certainly justified, against two very responsible and effective competitors, primarily American and United, but the abuses are so pervasive and the enormity of the threat to competition and the consumer posed by computerized reservation systems are so great, that we have to speak out and we really ask for action.

In fact, a testimony to that is that there is probably no issue since deregulation that all the airlines, except those that own computerized reservation systems, have agreed on except this issue. The power of automation made possible by the computer has been the subject of a lot of interest in the Congress for many, many years. That is primarily focused on the right to privacy. What you are focusing on today and what we are trying to help you address today is a less understood, less visible, but equally insidious abuse of automation in the computer. It is an abuse by major airlines that own these systems at the expense of competition and the expense of the consumer.

The prepared testimony that I filed today, and that others have filed, lists these abuses in some detail, and I obviously will not go through those in the kind of detail that we submitted.

Carrier ownership of CRS's and the abusive practices they have engaged in threatens the future of independent travel agents in that very industry, as well as severely compromises the consumer and threatens competition among airlines. It poses a threat to the industry in a deregulated mode.

The CAB's attempt to regulate the most abusive anticonsumer and anticompetitive practices of the major CRS owners have been, in my view, a complete failure. In fact, matters are worse in many respect now than they were before the regulation. Dan May, in the Joint Carriers' submission, has gone into this in detail.

The primary screen that were supposed to be stripped of all bias still are biased today. Today it is more subtle. Today it is not by a carrier's name; but today it is by the computer instructions that are given that favor the Uniteds, Americans, and the other vendors.

The secondary display that you have heard so much about which is explicitly and aggregiously biased has only been in effect for about 3 months. Yet, over 25 percent, for example, of Continental's bookings are coming on the secondary display. I suspect those figures are similar for the other carriers, which shows how pervasive the secondary display is used.

Continental and others are now paying $10,000 a month for information, marketing information, that the CAB ordered be made

available to all the airlines on a nondiscriminatory and timely basis. We still, today, do not even have that information from American Airlines who has it for their own company for their own marketing needs.

Fees charged to be listed in the major CRS displays have gone up 300 percent. And as Mr. Muse mentioned, American's own internal study shows the cost of providing that display is about 50 cents or so a booking that we are charged $1.75 or $1.85 a booking. Those kinds of above-cost pricing can only come about if there is market power, that there is nothing you can do against it.

Incremental revenues continue to be derived by the owners of these systems because of the continuing bias that is in the system, both primary and secondary.

Let me focus on a couple of issues that maybe have not been addressed yet, that I am sure you will have to get into. United and American will argue—and it has an appeal to it; and it has a personal appeal to all of us that believe in deregulation and those of us that have been proponents of deregulation as I have been and Mr. Muse has been for many, many years—that the Government should stay out of this issue; that the Government has no right to intercede.

They would have you believe that deregulation means the abolition of all Government constraints and all Government interference. But deregulation does not mean a laissez-faire policy. Deregulation does not mean rules against discrimination in the workplace or rules on safety have to go away, nor does it mean that rules and antitrust policy goes away.

It does not make any sense to deregulate and stop the Government from acting anticompetitively unless the Government is going to provide an environment where private firms do not act anticompetitively. If the Government is going to stop fixing prices, obviously private firms cannot fix prices. That is also true with the distribution systems which are today very, very anticompetitive.

The efforts at comprehensive CRS regulation has created more loopholes. The loopholes that the Justice Department predicted were there have come about. Those loopholes are gaping, and there are more loopholes than the Justice Department or anybody else has even imagined are there today.

The only simple solution—and people have called this solution radical; I think it is the simplest of solutions—is to prohibit ownership of CRS systems by all air carriers after a certain date. The carrier owners of the systems will receive a fair price, and, in fact, make a very healthy gain on what has already been a highly profitable, supraprofitable operation because of the market power that they have had.

Later in this hearing the CEO's of American and United will say all the money that they have put into this and the substantial risktaking that they have had in these systems, and they have developed very, very effective and expensive systems. But these systems have come about in an environment where regulation created the marketing breath of these airlines. The tremendous route systems that they had were decreed by the CAB. They were not necessarily accomplished by superior skill, foresight, and industry.

So the playing field was not level when they developed these systems. It was inevitable with their size and power that they, rather than a Republic or a Muse or a Continental, would be able to develop these systems.

The practices engaged in by the owners of these systems threaten travel agents. And if you really look at the definition of consumer fraud in Black's Law Dictionary, the CRS practices actually appear to meet that definition of consumer fraud. But it is a consumer fraud that is so pervasive that it cannot be addressed by individual lawsuits on behalf of consumers.

There is no other area of American business in which such massive deception goes on day in and day out, and to date there is not an effective Government solution.

There are two positive things, in conclusion, that this subcommittee could accomplish even today before the airline executives that are here today leave the room. One is to get a pledge from the owners of these systems that at least the most aggregious example of bias, the secondary display, will be eliminated. That could be done immediately.

In fact, when the first secondary display was put in by United, American thought it violated the spirit of the CRS rules. And American now announced last month that because United is doing it, they have to do it. Since one has to violate the rules, the other has to violate the rules.

The second thing that we could ask these companies to do today is to at least, until the Government acts completely to eliminate the problems that are inherent in these systems, at least ask that the consumers be warned of the deception that they are subjected to day in and day out. We could request United and American to display prominently in travel agent locations a warning to consumers. We do this with cigarettes. We do this with octane levels in gasoline. It is a remedy this committee is very familiar with.

The disclosure could read something like this: Your airline reservation system will be made with a bias in favor of United Airlines or American Airlines and does not necessarily provide you with the most convenient or least expensive flight.

If you wish to avoid this bias, you should call other airlines and compare their prices and services, and be sure to shop around.

If American and United refused to at least do these two very, very simple things, at least it is some indication of how quickly this committee has to move.

Thank you, Madam Chairman.

[The statement follows:]

STATEMENT OF PHIL BAKES, PRESIDENT, CONTINENTAL AIRLINES

Chairman Kassebaum and Members of the Subcommittee, my name is Phil Bakes. I am the President and Chief Operating Officer of Continental Airlines. Prior to my employment in the commercial aviation industry, I served from 1977 to 1979 as General Counsel to the Civil Aeronautics Board ("CAB") and, before that, as Counsel to the Senate Judiciary Committee's Antitrust and Monopoly Subcommittee.

I appreciate the opportunity to appear before you on the vitally important subject of Computer Reservation Systems ("CRS's").

I. OVERVIEW: THE CONSUMER AND COMPUTER RESERVATION SYSTEMS

The unbridled power of automation made possible by the computer has been the subject of legitimate concern for many years. The danger inherent in the use of computer technology to achieve objectives which are not in the public interest are generally well known to this Subcommittee.

Much of the concern to date has dealt with the "right of privacy". This concern has focused on the use of information about an individual's income, employment, habits, friends and communications in ways that threaten constitutional liberties and result in governmental or corporate abuse of individual rights. Fortunately, to date, an aware public and a vigilant Congress have enabled the nation to have the benefits of the tremendous efficiency computers offer without major abuses in the area of civil liberties.

Today's hearing focuses on a less visable, less understood, but equally insidious abuse of automation and computer technology. That abuse is the use of computer technology by private corporations to develop monopoly power and to exercise that power to enhance profits and enlarge market shares at the direct expense of consumers and competitors.

In the commercial aviation industry, some carriers, who are also the owners and operators of airline computer reservation systems, have deceptively manipulated these systems for private gain to the detriment of consumers, competitors, and the national economy. By intentionally programming bias into their systems, these airlines have assured themselves a significant, unfair and unlawful advantage over their competitors. This is done by directing consumers away from lower priced or more convenient alternative carriers in favor of their own flights.

If some meaningful form of public restraint is not imposed, the use of monopoly market power and deceptively, if not fraudulently, biased CRS's to gain unfair and competitive advantages and to sell consumers products they do not want will spread to other sectors of our economy and national life. If the business strategy of intentionally biasing consumer information to defraud consumers and deceive travel agents for commercial profit is allowed to flourish in air transportation, how long will it be before this practice spreads to banking, housing, insurance, hospital care and other important sectors of the economy?

Going to a travel agent to book a flight is not much different than going to a stockbroker to purchase shares in a public company. In either case, the consumer has sought professional advice and assistance in making a purchase in an extremely complex and confusing environment. The difference, however, is that the stockbroker can and must give unbiased computerized information on the value of the stock which is accurate. Using this information, and aware of the many other inherent risks in the decision to purchase, the consumer makes an informed investment decision.

The travel agent, by way of contrast, is at a very serious disadvantage in serving his or her customer. The travel agent knows or should know that the computerized information available on the consumer's options is incomplete and misleading; that it has built-in biases which systematically favor some carriers and disadvantage others; and that this information is in a constant state of change as new marketing objectives are being programmed in by a system's owner. As a result, in most cases when the consumer purchases an airline ticket through a computer reservation system, the consumer is acting in reliance on information which has been consciously and deliberately biased for the sole purpose of influencing his decision in a manner contrary to the consumer's economic and other interests. The travel agents, if they are to work their way through the maze of bias, must devote extraordinary and unnecessary time and effort into making the reservation.

The immediate effect on the consumer is that he or she may have: (1) paid more for air transportation than necessary, without being aware of readily available options; or (2) been denied the most convenient departure time, routing or total elapsed flight time; or (3) in all likelihood, both.

Thus, computer technology and the efficiency it brings to commercial aviation ticket sales is having a very curious and contrary side effect. When computer technology is used to improperly influence consumer choice, it does not increase efficiency; it does not improve service; and it does not reduce consumer costs. In fact, when computer technology is used to deceive and to cover up information that the travel agent and the consumer need to make informed choices, it has the opposite effect: It reduces efficiency and increases consumer costs.

It denies the consumer very vital information about costs, service and convenience.

It prevents full, fair and open competition and, therefore, penalizes carriers who may offer better service at a lower cost.

It rewards the carrier whose competitive advantage is not in price or service, but is in its ability to manipulate and bias data and information relied upon by consumers and travel agents.

The average airline passenger is not even aware that he or she is being deceived. The passenger relies on the technology, the informatioin and the travel agent. And why not? From the public's point of view, it is totally inconceivable that a bank could utilize incomplete or inaccurate computer information on the customer's bank account; or the broker on stock market prices; or the real estate agent on the price of homes or apartments for sale or rent. Why should the standard for airline computer reservation systems be different?

Obviously, carrier ownership of reservation systems raises very serious questions of public policy of major concern to the members of this Committee. The balance of my testimony addresses the specific problems carrier ownership of CRS's presents to the traveling public, to the independent travel agent, to airline competitors and to the success of deregulation in the airline industry.

II. THE COMPUTER RESERVATION SYSTEM THREAT TO THE INDEPENDENT TRAVEL AGENT

Carrier ownership of CRS's poses a serious but little recognized threat to the future of the independent travel agent. The travel agent industry's reputation for independence and credibility is seriously threatened and compromised by biased and deceptive CRS information.

The impact of this threat is already being felt. The first major group of consumers to act to avoid the biased CRS information systems (and, as a result, to cease use of the travel agent industry) are the large corporations. From a corporation's standpoint, the scheduling of corporate employees on the less convenient flights of American and United at higher fares than are readily available from other carriers is a matter of substantial concern. Many of these corporations have confronted this problem by creating in-house travel departments to ensure that employees travel on the most convenient and economic flights. More will do so in the future.

The second large consumer who will act to control loss of revenues caused by CRS carrier-owner bias is the Federal government. Today, for example, the travel office in the Department of Defense (DOD) can not print an automated ticket on Continental Airlines. This is because DOD uses SABRE. American Airlines, SABRE's owner, previously cancelled and continues to refuse to conclude a new interline agreement with Continental. This abusive use of public funds cannot be continued at a time when government expenditures are receiving close and careful public scrutiny.

The third consumer group to react to CRS deception and bias—and to the travel agent industry which is an unwilling agent in conveying this bias—will be the average American consumer. As the extent of CRS bias and the fraud it perpetrates on consumers becomes known to the public, the average consumer will react against the system. The reaction will be comparison shopping on fares and flights. Consumers will find ways to avoid CRS's and, inevitably, travel agents to directly book flights with carriers. It will not be easy or efficient for the public, but the dollars at stake are so large that this trend will continue. The integrity issue is, therefore, a very important problem for the independent travel agent industry.

The travel agents are placed in a difficult situation by CRS carrier ownership for other reasons. Many of them fear economic retribution from the dominant CRS carrier owners. As the CRS carrier owners' market power grows, the independence of the travel agent diminishes. The monopoly market power of the CRS carrier owners also constitutes a threat to travel agent fees. Today, competitor carriers are the target of exhorbitant fees for CRS access. Tomorrow, the carrier owners could choose to reverse today's subsidy policy and increase their profits by cutting travel agent commission fees and increasing charges for installing CRS terminals in agents' offices.

III. THE COMPUTER RESERVATION SYSTEM THREAT TO COMPETITION

Computer reservation systems constitute a major technological innovation for the airline industry. CRS's provide travel agents with the opportunity to keep pace with ever-changing airline schedules and provide the potential to give consumers complete information from which to make informed choices. However, to date, the available systems have not been utilized to ensure complete information to either travel agents or consumers. Instead, the systems have been designed around bias and deception for the purpose of directly enhancing the competitive position of the carrier-owners of the systems. Indeed, today, ownership and control of a CRS by an air car-

rier can be more important than operating costs, system productivity or advertising in determining who wins and who loses in the commercial aviation industry.

The two major reservation systems in this country are owned by the nation's two largest commercial airlines. SABRE, owned by American Airlines, holds a 49 percent share of the automated CRS market, measured by revenue. APOLLO, owned by United Airlines, holds a 31 percent share of the market.[1] In many major air transportation centers such as Dallas/Fort Worth or Denver, either American or United may individually control as much as an 80 percent share of the CRS market in the region. Annually, over $26 billion in air travel is booked through CRS's.

A. CAB regulations

In view of the significant concerns surrounding the market dominance and anti-competitive impacts resulting from CRB's owned by only a handful of major air carriers, the CAB initiated a rulemaking proceeding to consider possible regulatory solutions to the mounting evidence of abuses. As one of its final actions prior to its administrative sunset, the CAB, on November 14, 1984, adopted a very limited final rule governing "Carrier-Owned computer Reservation Systems." The CAB's rule was intended to prohibit some of the most serious anti-consumer and anti-competitive abuses engaged in by CRX owners.[2]

In important respects, the CAB's rule was based on the findings of a major Department of Justice investigation and report on CRS anti-competitive abuses which was concluded in late 1983. The Department of Justice report on CRS anti-consumer and anti-competitive practices concluded that: ". . . CRS market power has been exercised against rival carriers through display bias, pricing strategies, and selective suppression or manipulation of information in the display. The two dominant CRS systems have evolved technologically from relatively crude information depositories to highly sophisticated tools that can be, and in some instances have been, used by the sponsoring or "host" carriers to punish or favor specific airlines in particular markets.—DOJ Report, p. 5.

In its report, the Department of Justice identified a number of very specific and recurring instances in which Continential Airlines had suffered substantial competitive disadvantage at the hands of the major CRS owners. For example, the Justice Department found that, through its CRS, American Airline had suppressed information on Continential Airline's low "supersaver" fair: ". . . From November 1981 to February 1982, American suppressed from its Shoppers' Fare Quote display Continental Airlines' "supersaver" fares in 65 individual city-pair markets. . . . American decided not to match Continential's fares, but rather to remove them from SABRE's price-comparison display."—DOJ Report, p. 5.

The Department of Justice report documented numerous other instances of anti-competitive behavior by CRS owners. In another example, American Airlines prevented New York Air's 1981 attempt to enter the La Guardia-Detroit market: "In 1981, when New York Air entered the La Guardia-Detroit market in competition with American, American altered SABRE's display logic so that New York Air flights would be buried far down in the display sequence. New York Air experienced a drop in load factors and left the market shortly thereafter. There is evidence that American's purpose was to punish New York Air for its entry, and to intimidate New York Air so that it would not enter the La Guardia-Chicago market in competition with American."—DOJ Report, pp. 5-6.

The report concluded: ". . . The most dramatic manifestation of the competitive harm caused by carrier-specific bias is that New York Air left the La Guardia-Detroit market after SABRE increased the bias against it. Not surprisingly, some rivals have shown trepidation about entering markets to compete with a dominant carrier that also hosts a CRS. . . ."—DOJ Report, p. 8.

In a third example of abuse, United Airlines refused to grant Frontier Airlines, a direct competitior, CRS "cohost" status: "Less precise but still effective means by which to punish rivals are either to refuse completely to include their schedules and availability in the system, or to impose inferior displays on them by refusing to give them "cohost" status. Either technique can be pursued either by a direct refusal, or by demanding a prohibitive price for equal treatment. The evidence shows that for twelve months United refused to cohost Frontier, which competes directly with it in

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[1] Comments and proposed rules of the Department of Justice on Computer Reservation Systems, November 17, 1983, page 37. Hereafter cited as "DOJ Report".

[2] These abuses are documented in the report prepared by the Justice Department after a major antitrust investigation centered on American's and United's CRS practices; in a 1983 CAB report mandated by the Congress; in submissions made by other carriers, passengers and travel agents during the CAB rulemaking process; and, in congressional hearings.

many markets. United adopted the same posture for lesser periods with respect to other carriers. . . ."—DOJ Report, p. 6.

In a fourth instance, American refused to carry New York Air's flight information on SABRE unless New York Air would enter into an interline agreement with American:

"The evidence is clear that American used SABRE access as a competitive tool to discipline rivals. . . .

". . . American determined, however, to use the other carriers' desire to access SABRE in order to obtain agreements on its net ticketing proposal. An internal American memorandum indicates that American could use SABRE, not only as a negotiating tool but also, through bias, to route traffic to carriers that signed such net ticketing service charge agreements. . . .

". . . In the fall of 1981, New York Air asked American to show New York Air's availability on SABRE. American told New York Air that there would have to be a complete interline agreement between the carriers before American would consider showing New York Air's availability on SABRE. . . ."—DOJ Report, pp. 109, 110 and 112.

The competitive abuses and dirty tricks cited above which have been directed at Continental and other competitors by American and United represent only a few of the past and continuing anti-competitive practices engaged in by the major CRS carrier owners.

It was against this background of growing abuse that the CAB finally acted in promulgating regulations that attempted to eliminate the most eggregious practices:

Display bias which has been programmed into CRS's by the major carrier owners for the purpose of deceiving consumers and travel agents, injuring their commercial airline competitors, and unjustly enriching the CRS airline owners in amounts totalling around $300 million annually;

Unfair and unauthorized use by CRS airline owners of their competitor airlines' proprietary data to gain competitive advantage; and

Discrimination in the fees charged by the CRS owners to their competitor airlines for listing their flights in the CRS's.

Four months of experience under the new CRS regulations conclusively demonstrate their total failure to achieve even the modest and limited objectives of the CAB. These regulations have not even begun to address the concerns raised by the Department of Justice and the Congress. Indeed, the problems that the regulations were supposed to solve are worse now than they were prior to enactment of the regulation.[3]

B. Need for immediate legislative action

The consequences of a failure on the part of this subcommittee and the Congress to promptly and forthrightly address the unfair, monopoly driven, anti-competitive practices which the carrier owners of CRS's continue to engage cannot be overstated. If competition is not allowed to work in this industry, I am fearful that CRS abuses will ultimately lead to a drastic, monopoly driven rstructuring of the airline industry. This will result in fewer airlines, less competition, substantially reduced service, the disappearance of our independent travel agent system and greatly increased consumer costs.

The issue before this Subcommittee is not which airline acted first and invested time and resources to gain market position and dominance in computer reservation systems. The issue is not airline deregulation or reregulation. The question presented here today is much broader and more fundamental.

The issue is competition. The issue is whether Congress is going to establish and insist upon a level playing field on which commercial air carriers may fairly compete in a deregulated environment on the basis of price and quality of service. Today, the playing field is unfarily and sharply tilted against the consumer and competition and in favor of the CRS carrier owners because they possess monopoly market power derived from their CRS ownership. And, as this hearing will demonstrate, the CRS carrier owners exercise that market power against their competitors with increasingly bold and open arrogance.

The CRS carrier owners primary competitive weapon is not price and it is not quality of service. Quite the contrary. The CRS carrier owners concept of "competition" is to program bias and deception into CRS display screens. They "compete" by exacting monopoly rents from competitor airlines. They "compete" by having and using unfair access to competitors' proprietary data and information. They "com-

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[3] Attached as exhibit A is a "Chronology On The Acquisition, Maintenence and Abuse of Market Power By The Major Carrier Owners of Computer Reservation Systems."

pete" by developing and utilizing regulatory loopholes to avoid the purpose and the spirit of regulations which were intended to prohibit competitive abuse. In short, the CRS carriers owners "compete" by the aggressive and unbridled exercise of the monopoly market power they unlawfully possess.[4]

In this testimony, I cannot set forth in detail all of the past, present and potential future abuses of the vast monopoly power exercised by the CRS owners. These abuses have been adequately chronicled in the Department of Justice report and in the record of the CAB rulemaking proceeding. However, at this time, I would like to highlight the major concerns with the unbridled and unconstrained power over the entire airline industry and its consumers which is exercised by the CRS owners and the very real anti-competitive and anti-consumer impacts that result from the exercise of that power.

1. The two major carrier owners of the computer reservation systems are brazenly and effectively violating the CAB's regulatory prohibition on bias in their CRS primary display screens.—The pattern of deception of consumers and travel agents which was initiated by American and United and which led to the adoption of the November 14, 1984 CRS regulations continues and even flourishes today in spite of the CAB's attempt to prohibit these practices. The CAB regulations prohibit these practices. The CAB regulations prohibited "carrier specific" bias in the CRS "primary" display screen. American and United, however, have modified their systems to circumvent this regulation.

First, these carriers have modified the "primary" display to take advantage of their immense size and connecting hubs. For example, American Airlines has recently deemphasized the importance of elapsed time and added a 90 minute penalty on interline connections. As a result, an American to American connection will be displayed on the SABRE screen ahead of a United to Aloha Airlines connection even though the latter set of flights has a much shorter total elapsed time.

Second, American and United now encourage travel agents using their systems to ignore the less biased "primary" display. They have modified their systems and trained travel agents to bypass the less biased "primary" display and to utilize instead the unregulated, highly biased "secondary" display.

A concrete indication that agents are being provided incentives to book from the secondary, biased displays which favor the host vendor are the booking fee bills received by Continental and other carriers over the last three months. During the first two weeks following the CAB rules, just 6 percent of Continental's estimated sales were made via Apollo's highly biased "secondary" display. In January 1985, the number of sales made from the secondary screen soared to nearly 38 percent of all Continental sales. If Continental is receiving 38 percent of its sales from the secondary display, which is heavily biased against it, travel agents must be using the secondary display for the majority of all transactions.

It is our view that the deception that the regulation was supposed to prohibit is now broader and more pervasive than ever before. These practices are also more sophisticated, more profitable and more anti-competitive than they were prior to the CAB's adoption of the regulation.

Because of these practices, Continental and other airlines who compete with American and United are losing passenger traffic and significant market shares to the major CRS owner airlines. This is true even though many of the competitor airlines offer a better product in the form of more convenient and timely service at a lower price.

Consumers are also highly disadvantaged by these practices. Although less expensive or more convenient flights may be available on other airlines, the purchaser of airline tickets is often booked directly on the flights of the major CRS carriers without ever being informed of the alternatives.

The failure of the CAB regulations to prohibit display bias on the CRS screens which travel agents use, and which consumers—to their detriment—rely upon in spending their travel dollars, is stated in the most appalling and brazen terms in a report from the February 27, 1985 "Aviation Daily:"

"American has modified its Sabre computer reservations system *so that travel agents will be able to view the secondary biased screen as an 'initial response' to a . . . [consumer's] flight availability request. . . .*

"American said [other CRS owner] carriers 'have allowed each office to select whether to receive a biased display by updating a display control table.' *While*

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[4] Attached as exhibit B are 46 pages of "Excerts From the Department of Justice's November 17, 1983 Public Comments on Regulating Airline Owned Computer Reservation Systems," which document in great detail the manner and extent of the exercise of this monopoly power by the CRS owners.

American said it does not believe such action 'corresponds with the spirit of the (CAB) ruling,' it will match its competitors' move. . . .

"With American's modification, *travel agents will be able to view the biased display immediately by adding a new key word. . . .*

"Several Sabre competitors have chosen to use 'a lock-in-method' on their own CRS system under which an agent views the secondary, biased display when the units are switched on each morning, according to an American spokesman. He also said that *because of financial inducements and this lock-in mechanism, the dominance of the primary versus secondary screenings has been reversed. . . .* "—[emphasis added]

The "competitors" referred to by the American spokesman are, of course, United Airlines and, to a lesser extent, Trans World Airlines.

Through these and other mechanisms, the CRS carrier owners have completely circumvented the CAB regulation intended to eliminate the bias originally built into those systems. Instead of complying with the CAB directive to eliminate bias in favor of their own flights, the CRS owners have developed new and innovative systems to ensure that travel agents continue to divert unwilling passengers to their flights.

The CRS owners have also launched—in the name of "meeting the competition"—a spiralling pattern of increasing deception and fraud in which each carrier owner's dirty trick is matched or exceeded by that of the other carrier owners.

Appended to my testimony as Exhibit C is a recent study prepared by Continental of CRS bias in SABRE and APOLLO in both their primary and secondary screens. The cities chosen are in States represented by the Members of this Subcommittee. Set forth below are a few examples from the study.

CHICAGO—ALASKA (APOLLO)

In the primary display, American and Northwest flights are listed in the second and third positions respectively. However, in the secondary display, United is able to list their flights in the first 4 positions moving the other carrier flights further down.

WASHINGTON DC—ASPEN, CO (APOLLO)

United's algorithm has been designed to display connections involving carriers with marketing relationships before other air carriers. United has such relationships with at least 10 other airlines, including Aspen Airways (AP), and Rocky Mountain (JC). Connections between United and these two carriers are displayed exclusively in the first 3 screens, while Continental routings are not even listed until the fourth screen despite the fact that many of Continental's routings are faster than those listed earlier.

WASHINGTON, DC—WICHITA (APOLLO)

In this example, no United flight qualified for the Primary display. Yet, in the Secondary display, United's flights dominate the screen with only one other carrier's flight listed.

KAUAI HI—SEATTLE, WA (APOLLO)

Under United's algorithm, all online connections are listed before interline connections, regardless of service considerations. In this instance, if a passenger were to request service from Kauai, to Seattle to depart around 8:00 AM, the first flight an agent would see in the primary display would be a United flight departing at 9:00 PM and arriving the next day at 8:32 AM. Yet, at the bottom of the screen is listed a connection involving Hawailan Airlines and United that departs at 11:44 AM, which arrives at 8:40 PM the same day. Undoubtedly, this is a much better connection and much closer to the request departure time than the United-United connection listed on the first line.

PORTLAND, OR—KANSAS CITY, MO (APOLLO)

In this instance, United in the primary display is listed as the last connection of the first screen. However, because of the host bias in the secondary display. Frontier and Continental routings which are faster, and closer to the requested departure time, are moved to an inferior display positions in the secondary display.

2. *American and United utilize other carriers' proprietary information to gain an unfair competitive advantage.*—When a travel agent makes a booking, significant

data is stored in APOLLO and SABRE. This data may include the passenger's itinerary, class of service, fare code, address, preferences, etc. This data often provides extremely valuable insights into the response of the market to new fares, routings and/or new services.

The CAB tries to curb the anti-competitive use of other carriers' proprietary data by requiring American and United to make available to other carriers any new marketing data they generated on computer printouts. This regulatory effort failed for two reasons. First, American and United have the ability to develop highly useful displays of other carriers' data on the computer display terminal without ever printing it out, thereby avoided the regulatory requirement to share the information. Second, American and United can obtain the same data as is on the computer print-out on a real time basis. This information, which is now offered or sold to the other carriers at a fee of $10,000 per month, is useable only several days after the end of the month. The air transportation market is so dynamic that this time lag is an immense competitive advantage to the CRS carrier owners.

3. *The fee discrimination regulation is being used by American and United to justify exorbitant CRS access fees.*—The CAB regulation has, to date, been somewhat effective in bringing and end to American's and United's anti-competitive practice of discrimination in the fees charged to competing carriers for displaying their flight information in the CRS's. The CRS airline owners have, however, exacted an exhorbitant price for ending fee discrimination. When the CRS regulation became final, American and United, in suspiciously parallel actions, increased the price charged for flight booking from between 35 and 50 cents per segment to $1.75 to $1.85 per segment booked. This price increase constituted a unilateral and immediate 300 plus percent increase in the price for access to a vital and essential information service.

The net result of these actions is that United and American have each increased their profits from the monopoly rents charged for access to their reservations systems by $99,530,000 for American and by $77,555,000 for United on an annual basis.[5] The CRS carrier owners' specious explanation for the 300 percent price increase in access fees is that the increase is somehow necessary to recover the "incremental" passenger revenues lost because of the prohibition by the CAB of "bias" in the primary display screen. But the CRS owners had no right to the excessive profits derived from the extra passengers directed to their flights through the biases built into their systems. Furthermore, as noted above, there continues to be very significant bias in the primary screen. Finally, it must be noted that the secondary screen remains totally unregulated and highly biased.

The CRS owners have persuaded many travel agents to ignore the less biased primary screen and to use the highly biased secondary screen. As a result, American and United still continue to receive the windfall "incremental" revenues from passenger traffic diverted to them and away from their competitors' flights. This incremental revenue stream was estimated by United in 1982 to be worth in excess of $165 million. The value to American is probably substantially more. And, it is growing larger every week and every month.

Thus, paradoxically, a regulation which the Justice Department, the CAB, the Congress and the rest of the Commercial airline industry agreed was essential to prevent the blatant exercise of illegal market power by American and United to gain competitive advantage and extract monopoly rents, turns out to be totally ineffective. Actually, it turns out worse than ineffective. Under the regulation, American and United have: (a) continued their supposedly prohibited deceptive and unfair competitive practices; (b) used the regulation as an "invitation" to increase the fees charged for CRS access by over 300 percent; and (c) continued to receive the windfall in incremental passenger revenue derived from deceptive primary and highly deceptive secondary display screen bias.

C. Remedy

The CRS regulations—and the deceptive and unfair practices it was supposed to prohibit—deserve and demand the immediate attention of the Congress, the Department of Justice and the Department of Transportation.

The airline computer reservation system today is not only a dangerous threat to the consumer, it is also a very dangerous threat to competition and deregulation. The government's response to this threat has been a demonstrable failure—not only of regulatory policy, but of antitrust policy.

1. *Deregulation and competition work so long as law and policy restrain anti-competitive behavior.*—Some airline executives would have you believe that deregula-

[5] Study by Dr. William J. Duffey submitted by joint carrier group.

tion means the abolition of all government intervention, most particularly antitrust. However, deregulation does not mean laissez faire.

The intention of deregulation—whether of the airlines, communications, trucking or any other industry—is to restore an industry to the same forces as apply to the economy generally, including competition. A deregulated airline industry is no less free from the jurisdiction of federal laws mandating non-discrimination in employment, a safe workplace, or the antitrust laws under which the federal government takes responsibility for protection of competition and thereby the consumer.

A few leaders of industry view antitrust policy as simply another form of regulation. But they are wrong. Antitrust does not "regulate" free markets. Rather, it seeks to "preserve" free markets by creating and maintaining the conditions under which a marketplace can function competitively. It make sense to deregulate—stop the government from acting anti-competitively—only if the government is also committed to enforce a strong policy designed to stop private companies from acting anti-competitively. There is no point in preventing government agencies from fixing prices, for example. if private companies through their executives can do the same thing. Deregulations prevents the government from anti-competitive action; antitrust law and policy prevents private companies from engaging in the same such behavior.

Unfortunately, today, in the commercial aviation industry, all of the ingredients for a free market are present except effective enforcement of the antitrust laws.

2. CRS divestiture by judicial decree or by legislative action is a practical remedy.—What should be done? First, it is clear to me that further efforts at comprehensive CRS regulation will only create more loopholes and, therefore, only prolong the current abuses and anticompetitive practices. Second, the financial incentives for the CRS carrier owners to use the reservation systems in anti-competitive ways are so compelling that, on the basis of experience to date, corporate management of the carrier owners cannot reasonably be expected to resist the practice even when it is prohibited by regulation.

It is my judgment, therefore, that the only certain solution is to simply prohibit the ownership of CRS systems by all air carriers after a date certain. Willing buyers who are not in the airline business will inevitably come forth to acquire the CRS companies if they are put on the market. The carrier owners of CRS's will receive a fair price and, in fact, may make a very healthy gain on what has already been a highly profitable operation.

The submission to this Subcommittee by the joint carrier group examines the alternatives of administrative action and legislation to achieve this result. The submission also contains a substantial discussion of legislative divestiture, supported by consultant studies that demonstrate the feasibility of divestiture to deal with the problems of unrestrained monopoly power in the CRS industry.

Later in this hearing the members of this Subcommittee will hear from senior executives of United and American. You will probably be told by these executives that as a result of substantial risk-taking and as a result of the application of superior skill, foresight and industry, they have developed a better "mousetrap." Further, you will probably hear that their competitor airlines—those who did not participate in the development of CRS's—are proposing a taking by which the Federal government would take away the benefits of their CRS investment and innovation.

When you hear this story from American and United, consider it in light of the following facts. First, United was the creature of a court ordered divestiture from the Boeing Company in the early days of commercial aviation. Second, the nation's two largest airlines did not get to where they are today solely as a result of their "superior skill, foresight and industry" in a free and competitive market. In fact, they attained their routes, their size and their equipment in a highly regulated, protected market. By decree, the CAB established passenger fares for their service. By decree, the CAB determined their profitability. Given the benefits these carriers have derived from decades under regulatory protection—their size, their market share and their financial resources—it is only natural that American and United were successful in computerizing the travel agent industry. They were the industry leaders and computerization was inevitable to the industry.

These carriers should, under any reading of the antitrust laws, by required to divest their CRS operations because these businesses constitute "essential facilities" which are being used in an anti-competitive manner. Divestiture, whether by the courts or the Congress, is not a "taking." United's and American's shareholders will, I am sure, be handsomely rewarded in this transaction.

IV. CONCLUSION

As can be seen, there are very serious, very fundamental problems in the manner in which CRS's are being used today by their major carrier owners. The practices engaged in by American and United threaten competition; they threaten the objectives of airline deregulation; they threaten the future of the independent travel agent; and they threaten the interests of the American consumer by continuing to deceive and defraud the traveling public of time, convenience and dollars.

The Fifth Edition of Black's Law Dictionary defines "fraud" as follows: "Fraud: An intentional perversion of truth for the purpose of inducing another in reliance upon it to part with some valuable thing belonging to him or to surrender a legal right. A false representation of a matter of fact, whether by words or by conduct, by false or misleading allegations, or by concealment of that which should have been disclosed, which deceives and it intended to deceive another so that he shall act upon it to his legal injury".

The elements of a "cause of action" for "fraud" are defined in Black's to include: ". . . false representation of a present or past fact made by defendant, action in reliance thereupon by plantiff, and damage resulting to plaintiff from such misrepresentation." *Citizens Standard Life Ins. Co.* v. *Gilley,* Tex. Civ. App., 521 S.W. 2d 354, 356.[6]

The CRS practices engaged in today by American and United certainly appear to meet Black's definition of consumer "fraud." I personally know of no other area of American business in which such massive calculated consumer deception is practiced so flagrantly and with such impunity. I am, however, astounded that DOT and the Department of Justice permit this active, intentional, ongoing deception of consumers and harm to competitors to continue. These practices can and should be immediately addressed by the government.

Thank you.

APPENDIX

Black's Law Dictionary, fifth edition: page 594

Fraud.—An intentional perversion of truth for the purpose of inducing another in reliance upon it to part with some valuable thing belonging to him or to surrender a legal right. A false representation of a matter of fact, whether by words or by conduct, by false or misleading allegations, or by concealment of that which should have been disclosed, which deceives and is intended to deceive another so that he shall act upon it to his legal injury. Any kind of artifice employed by one person to deceive another. *Goldstein* v. *Equitable Life Assur. Soc. of U.S.*, 160 Misc. 364, 289 N.Y.S. 1064, 1067. A generic term embracing all multifarious means which human ingenuity can devise, and which are resorted to by one individual to get advantage over another by false suggestions or by suppression of truth, and includes all surprise, trick cunning, dissembling, and any unfair way by which another is cheated. *Johnson* v. *McDonald*, 170 Okl. 117, 39 P.2d 150. "Bad faith" and "fraud" are synonymous, and also synonyms of dishonesty, infidelity, faithlessness, perfidy, unfairness, etc.

Elements of a cause of action for "fraud" include false representation of a present or past fact made by defendant, representation of a present or past fact made by defendant, action in reliance thereupon by plaintiff, and damage resulting to plaintiff from such misrepresentation. *Citizens Standard Life Ins. Co.* v. *Gilley,* Tex. Civ. App., 521 S.W.2d 354, 356.

It consists of some deceitful practice or willful device, resorted to with intent to deprive another of his right, or in some manner to do him an injury. As distinguished from negligence, it is always positive, intentional. It comprises all acts, omissions, and concealments involving a breach of a legal or equitable duty and resulting in damage to another. And includes anything calculated to deceive, whether it be a single act or combination of circumstances, whether the suppression of truth or the suggestion of what is false, whether it be by direct falsehood or by innuendo, by speech or by silence, by word of mouth, or by look or gesture. Fraud, as applied to contracts, is the cause of an error bearing on a material part of the contract, created or continued by artifice, with design to obtain some unjust advantage to the other party, or to cause an inconvenience or loss to other.

[The following information was subsequently received for the record:]

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[6] The full text of the definition is attached to the last page of this testimony as exhibit I.

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. Can you estimate how much more consumers spent in 1984 for air travel due to the effect bias had on inhibiting the sale of the lowest fare?

Answer. While it is very difficult to estimate specific consumer liability as a result of CRS practices, we have conservatively estimated that some $300 million is shifted to CRS vendors from other carriers as a result of bias and other vendor advantages such as current marketing data about travel agents and other airlines. Much of this revenue shift came at the expense of carriers who offered better service and/or price, and this shift was reflected in the services sold to the consumer. Conservatively, we estimate that most, if not all of this revenue shift, impacted the consumer. While vendors are developing "shopper fare displays" to help agents sort out the lowest fares, agents also know they must be productive, and to do so, they usually (90 percent of the time), sell from the first screen. So these fare displays, while helpful, don't necessarily reduce consumer liability, if schedules are not conveniently accessible.

Question. If divestiture is the solution to the problems you discussed at the Subcommittee hearing, it is likely to take a great deal of time to finalize? What would you propose as the short-term remedy to CRS problems you are now encountering?

Answer. Contrary to the premise of this question, we believe that divestiture is a relatively easy process. The easiest would be to force a spin-off to the shareholders of American Airlines and United Airlines. A sale is certainly a sound divestitute option that could be readily accomplished. In short, divestiture could well be just as expeditious as rulemaking.

As to regulatory relief, there are at least three easily identifiable rules that could be enacted. First, give travel agents the option of freely opting out of existing contracts. This would lower one of the entry barriers. Second, enact a rule that would provide each participating air carrier with the computer capability to access and manipulate the proprietary sales data on a real line basis. Third, eliminate the bias in the primary display. This bias is principally in the area of connections. American provides a 90-minute penalty bias for interline connectors; this is far in excess of the bias listed in the Official Airline Guide. United has biased the display of connections on the primary display by arbitrarily first displaying connections involving carriers that have a "marketing relationship." The definition of "marketing relationship has been developed unilaterally by United.

Finally, there is the troublesome question of fees. As long as American and United possess market power, the Department of Transportation must consider the question of fee regulation.

Question. Would you please tell the Committee how booking fees for Continental changed with implementation of the CAB rules?

Answer. Booking fees for Continental in 1985 will be $16.5 million vs. $5 million for 1984. When the 1985 numbers are adjusted for increased traffic vs. 1984, Continental will be paying almost $10.5 million more to the 5 U.S. vendors for the same volume it obtained in 1984.

Below is a breakdown of fee increases by system:

	Average segment fee		Percent increase	Total fees		Percent increase
	1984	1985		1984[1]	1985[2]	
Sabre	[3]0.35	$1.75	500	$2,000,000	$7,100,000	355
Apollo	.70	1.85	264	2,300,000	6,600,000	286
Pars	.40	1.75	436	260,000	1,700,000	650
SODA	[4].75	[4]1.00	33	450,000	800,000	177
Datas II	.20	.75	375	50,000	340,000	680
Total average	.50	$1.75	250	[1]$5,060,000	$16,540,000	327

[1] Includes fee increases effective November 14.
[2] 20 Percent of the Total 1985 Fees is due to Continental's traffic growth, and increase in the number of agency locations. 1985 numbers are based on year to date numbers and forecast for the rest of the year.
[3] Included direct Access. The new fee would have been $2.00 per segment and Continental withdrew.
[4] Included direct Access, for which we pay an additional 25 cents per booking.

In summary, Continental's fees went up with 350% with a bottom line of $11.5 million more in 1985 than in 1984, even though the last 6 weeks of 1984 were billed at the new levels.

Question. In your opinion, should the CAB rules have dealt with the question of plating on a carrier? What would be your recommendation for action in this area with respect to additional rulemaking or legislation.

Answer. The CAB Rules should have dealt with the issue of plating because of the tremendous cash-flow implications to carriers who are "plated away." Currently, Sabre, Apollo and Datas II will plate on the vendor carrier automatically if they have one segment in the itinerary. It doesn't have to be the originating leg, it may be the only segment in 10, but they receive the cash and hold it for as long as 6 months until the billing is processed. To plate on a non-vendor carrier when a vendor carrier is in the intinerary, the travel agent must use an override entry.

Continental proposes a simple solution, one that supports the spirit of ATC Resolution 5.94. "Plating should be made on the carrier who operates the originating segment, except on international itineraries, where plating could be made on the carrier operating the first international segment." This is equitable to all carriers and can easily be incorporated to the existing CRS Rules. In fact, this was the rule which the CAB anticipated would be followed when it ruled on the issue of plating. In CAB Order On Reconsideration 83-4-135 in clarifying the language of Resolution 5.94, the Board stated, "There is no question that the agreement, as we understood it, would not permit travel agents to name any carrier other than a transporting carrier as the ticketing carrier as long as they could name a transporting carrier as a ticketing carrier. Now would it permit servicing carriers to encourage such a practice."

Question. Would you be willing to predict that without any changes to the current CRS situation, a major airline will file for backruptcy because of the effect of existing CRS operations? Is this the magnitude of the problem?

Answer. It is clear that airlines do not fail merely as a result of CRS practices. For example, Continental's high costs were a primary reason for the need to reorganize under bankruptcy laws.

But it is also clear that airline vendors have in the last 10 years earned hundreds of millions of dollars, not on the basis of a return for the costs associated with automation (i.e., fees from agencies and transportation providers), but by promoting bias to its favor, at the expense of competing airlines and unsuspecting consumers.

The CAB Rules have provided vendor carriers the additional opportunity to use their oligopoly power to quadruple fees under the guise that fees must be the same for all. While the costs to a few carriers has gone down, fees for 90% of the segments have not just gone up, but abusively risen.

While the damage to carriers such as Continental is severe, carriers who are children of deregulation and small commuters and regionals are also being severly impaired. It is no accident the two CRS vendors who control 80% of the market also posted more thanf 50% of industry profits in 1984.

Existing CRS operations, with the one-two punch of host bias and abusive fees, will significantly contribute to decline of competition in the airline industry. This can only threaten the objectives and benefits the deregulation has so far been able to provide consumers in the forms of lower fares and better schedules.

Senator KASSEBAUM. Thank you very much, Mr. Bakes.

Mr. Kutzke, it is a pleasure to welcome you as vice president, airline planning, Northwest Airlines.

Mr. KUTZKE. Thank you.

The CRS vendor airlines, American and United, now dominate the domestic airline industry. There are reasons for that dominance. These airlines had access to the major transportation centers and intercity markets that could not be equaled by smaller airlines prior to deregulation. That access provided the larger airlines with the existing market dominance necessary when deregulation occurred to take full advantage of the lack of Government control.

One of the areas these airlines began to exploit was the placement of their computer reservation systems in the travel agencies of the cities and regions which they dominated. The CRS systems have proved to be a necessity for travel agents, which are the primary marketing vendor for airline and airline related services.

Recognizing this, the vendor operators realized that utilization of their systems to favor their services would net substantial revenues

that would not occur with an impartial display. The impact of that bias was such that the CAB in the last days before sunset attempted to create a regulation that would cure this evil. The CAB did not succeed. The vendor operators have circumvented the rule in a matter of a few months, leaving it a hollow, empty shell.

The facts of its demise are shown by one recent experience on Northwest's system. United, one of the largest CRS vendors, has offered an agent with which Northwest does substantial business, the following incentives to drop the Sabre system the agent now uses: $500,000 in cash; a 10-percent agency override on all transportation sold on United; and 5 full years of free use of the Apollo system, including absorption by United of all line charges.

If the rule against bias were working, this offer would not have been made.

The U.S. Congress should be concerned about the concentration of market share in a very few large airlines that appears to be occurring in this industry. That clearly was not the intent of deregulation.

The unchecked CRS systems of the two major vendors are a major factor producing that concentration. The current situation, where Northwest's major competitors control the distribution system simply is not acceptable. Agencies accounting for about 88 percent of domestic revenue as of June 30, 1983, were automated. We estimate that number is now in excess of 90 percent. This indicates the control that the CRS systems have.

Development of a CRS system that would be attractive to a travel agent in a particular location requires a dominant base of operation, and this favors the very large carriers. The Justice Department agreed with this point this morning, and Justice agreed in the studies submitted to the CAB. Only American and United have the strength to exploit this possibility.

The dominance of these larger airlines had its origin in the regulated era where those airlines held the authority to serve most major cities and most major intercity markets. Northwest never had the base of operations in the large markets to support agency systems. I have given you some examples of these problems in my prepared testimony.

Significantly, the industry long ago recognized the need for a national reservation and fare system to provide the type of information to the travel agent that is provided by the CRS systems today. It is not something that was an inspiration or the result of business acumen by the larger airlines. These industry systems failed when United and American announced their intentions to market their own CRS systems.

The reason we do not have an industrywide CRS system today is because the large airlines—those with the market dominance necessary to support such systems—did not want such systems. Instead, they wanted systems they could manipulate to their own ends.

The CAB rules have simply not eliminated bias. The CAB rules have been circumvented with secondary display. In fact, our numbers for the secondary display bookings when we looked in January, were running 26 to 30 percent of our total bookings from United. That is for the Apollo system.

The fees the carriers are now charging for CRS services are simply unreasonable in our view. We have provided estimates for the record of costs, and they simply are not as high as the $1.75 or $1.85 that United and American are now charging us. We estimate that the increased costs of the CRS rules to Northwest alone is going to be $8.8 million per year. That is a substantial sum.

The bias and halo effects, which are caused by the way in which American and United display Northwest's schedules and fares, cost Northwest Airlines about $47 million a year. The basis for this estimate is set forth in the testimony, and we believe it is a very conservative estimate.

In terms of remedies, Northwest proposes you do the following:

First of all, we need intensified DOT regulation of the CRS systems. We do not favor increasing Government regulation in general, but we believe in this case it is absolutely essential. We were very disturbed to hear Mr. Scocozza say that they were going to wait before a review of the CRS regulations is conducted.

On this panel 3 of the carriers are part of a group of 12 carriers that over 3 months ago filed and requested an interpretation of bias rules in the current CAB regulations, and we still have not heard from DOT. At least DOT owes us an answer on that.

Northwest favors legislation requiring divestiture of the CRS systems automating agencies that account for more than 5 percent of sales by U.S. agency location. We believe your committee ought to consider and develop legislation along that line.

In the alternative, it is our view that airlines should be allowed to purchase shares on an equitable basis in systems automating travel agents producing more than 5 percent of domestic revenue. Whatever choice is made, the most important issue is to prevent the two largest carriers in the United States from dominating the U.S. air travel distribution system to the point that other carriers do not have an effective means of distributing the product.

Thank you.

[The statement follows:]

STATEMENT OF NORTHWEST AIRLINES, INC.

The CRS vendor airlines, American and United in particular and TWA, Eastern and Delta, now dominate the domestic airline industry. There are reasons for that dominance. These airlines had an access to the major transportation centers and intercity markets that could not be equalled by other smaller airlines. That access provided the larger airlines with the existing market dominance necessary when deregulation occurred to take full advantage of lack of government controls. One of the areas these airlines began to exploit was the placement of their Computer Reservations Systems (CRS) in the travel agencies of the cities and regions which they dominated. The CRS has proved to be a necessity for travel agents which are the primary maketing vendor for airline and related services. Recognizing this, the vendor-operator realized that utilization of its system to favor its services would net substantial revenue that would not occur with an impartial display. The impact of that bias was such that the CAB in the last days before sunset attempted to create a regulation that would cure this evil.

The CAB did not succeed; the vendor-operators have circumvented that rule in a matter of a few months, leaving it a hollow, empty shell. The facts of its demise are shown by one recent experience on Northwest's system. United, one of the largest CRS vendors, has offered an agent with which Northwest does substantial business the following incentives to drop the SABRE system the agent now uses: 1. $500,000 in cash, 2. a 10 percent override on all transportation sold on United, and 3. five full years of free use of the APOLLO system including absorption by United of all line charges.

If the rule against bias were working, this offer would not have been made.

The U.S. government should be concerned about the concentration of market share in a few very large airlines that appears to be occuring in the industry. That clearly was not the intent of deregulation as we understand it. The CRS systems of the two major vendors, unchecked, is a major factor producing that concentration.

I. THE ACT OF EVEN ATTEMPTING TO REGULATE THE CRS BY THE CAB INDICATES A RECOGNITION OF THE ABUSE OF THOSE SYSTEMS

On December 18, 1982 the President signed into law H.R. 7019 (P.L. 97-369). The Conference Report accompanying that legislation required that the Civil Aeronautics Board (CAB) and the Department of Justice (DOJ) conduct a study of the computer reservations systems which are leased to travel by the airlines and to determine the effects on competition and any antitrust implications which may exist. The Department of Justice submitted its well-reasoned analysis on November 19, 1983. A copy of the summary of its conclusions from that analysis is attached as Table 1.[1] It concluded that CRS industry was highly concentrated with a market power that could and had been used to adversely impact rival airlines. Based on its finding that contestability was inhibited whenever rapid entry and easy exit were discouraged and the CRS appeared to have this effect, DOJ concluded that relief in the form of CAB rules was desirable and necessary.

By Order 83-1-18, the Board offered interested persons an opportunity to file comments and provide any information those parties believed would be useful in considering the issues Congress has asked CAB and DOJ to address. Based on those comments, the CAB issued a proposed rule which, inter alia, required that:

Display bias.—CRS owners could not exclude any carrier from their systems. Flights must be ranked on the basis of service factors that do not consider carrier identity and are applied equally to all carriers. The criteria used for display priority must be announced to all.

For connecting flights, the connecting points used must be chosen on the basis of service criteria that also do not consider carrier identity. All editing (updating schedules) must be done on the same objective basis for all carriers.

Contracts with participating carriers.—Unjust discrimination between carriers in the setting of fees would be prohibited. The rule would not require that CRS owners necessarily charge equal prices to all users; price differentials on cost differences would be permitted.

CRS contracts with participating carriers would provide for expedited arbitration of fees. This would avoid lengthy delays that would result from government intervention into pricing disputes. As an alternative the Board asked for comment on requiring equal fees for all users. The rule would also prohibit the CRS owner from requiring the purchase or sale of any goods or service as a condition for participation in the CRS.

Subscriber contracts.—Contracts between CRS owners and travel agents would be limited to five-year durations. In addition, current contract terms that prohibit travel agents from using more than one computer system would be proscribed.

Service enhancements, defined as a product or service, offered through CRS's other than the display of information on schedules, fares, rules and availability, the ability to make reservations, and the ability to issue tickets. Examples of enhancements would be the ability to issue boarding passes or make advance seat selection. The CAB's proposal would require that if enhancements are offered to any participating carrier, they must be offered to all. The CRS owner is free to use enhancements exclusively for itself. The CAB also asked for comment on whether to ban such exclusive use.

Sales and booking data.—CRS owners have the capability of collecting a substantial amount of data on travel agent bookings, such as the number of bookings every agent makes and the pattern of sales on competing airlines. The Board's proposal would require that any sales and booking information generated by CRS owners must be made available to all other participating airlines.

Source: EDR-466C, served 3/27/84.

The Board also announced that it was requesting comments in a separate rulemaking on the need for rules specifying the way in which connecting flights are selected and arranged for display on computer terminals.

The CAB concluded that rules governing CRS's appeared to be necessary because of the vast market power such a system confers on its owner. The Board said that it believed CRS owners "have the ability and strong incentives to exercise this power

[1] The attached tables 1-16 were not reproducible and are in the committee files.

to reduce competition in air transportation, and to otherwise injure consumers. . . . Consumers are injured by diminished air transportation competition and higher fares."

The Board's proposed rules were to apply only to airline-owned systems used by travel agencies. They would not apply to internal carrier reservation systems. Foreign carriers would be protected by the rules, unless their own systems were biased against U.S. carriers. With respect to foreign carriers, CRS vendors, if they choose, would be permitted to bias or exclude foreign carriers from their systems if those carriers biased their systems against U.S. carriers.

Under the proposal, the rules were to be automatically reviewed in 5 years, with a built-in termination date of December 31, 1990 unless a succcessor agency were to extend them.

On July 27, 1984 the CAB issued its final rule which in effect adopted with minor modifications the rules set forth in its Notice of Proposed Rulemaking. The changes from the rules proposed in EDR-466C were, for the most part, technical and were designed to clarify the Board's intent with respect to certain proposals. One major exception was the decision to propose that CRS vendors use a minimum of up to nine hubs in constructing connecting flight displays. (Adopted by ER-1395, adopted 10/30/84.) A second exception was its proposal to require the release of criteria for selection and display of information to any interested party, rather than just participating carriers and subscribers. Finally, with respect to its proposal to require the release of marketing data generated through CRS's, the Board noted its concern that the release of such data to foreign carriers might give them an unfair advantage over U.S. flag carriers in international markets and indicated its intention to shortly issue a second Notice of Proposed Rulemaking seeking comments on those two subjects.

With regard to other matters, the Board decided to delete its proposal requiring CRS vendors to arbitrate fee disputes with participating carriers, accepting comments that such a rule would probably not facilitate dispute resolution. It also decided to adopt, essentially as proposed, a rule prohibiting CRS vendors from unjustly discriminating in the prices they charge for CRS access. However, to foreclose easy circumvention of that rule, and the bias rule as well, the Board restated its intention that CRS vendors treat all carriers with which they have not signed contracts in a nondiscriminatory fashion. This was intended to preclude CRS vendors from continuing discriminatory treatment and retaining bias in their systems by merely raising access charges to a level no carrier would be willing to pay, and then adjusting their bias to suit the competitor.

The Board also emphasized its expectation that basic access charges should not vary from carrier to carrier except in unusual circumstances. While the rule permits cost-based price differences, it also creates a rebuttable presumption that access charges will be equal.

With respect to the effect of its rule on existing participation contracts, the Board clarified its intent and understanding that they become void as of the effective date of the rule. Absent such a result, the objectives of the regulations would not be obtained for several years. In any event, the CAB rules were found to constitute a significant change in circumstances that may make the contracts unenforceable by either of the parties under contract law.

From all of the above, it is apparent the evils of the system were so apparent that it was obvious that a need for regulation was found, notwithstanding the fact the Board as constituted was one of the most anti-regulation, pro-sunset Boards to ever sit at the CAB. The problem is that the Board's rules did not correct the situation it intended to correct. The Board requires only that an unbiased display be available; the rule as adopted permits other displays that contain the bias the Board had earlier found objectionable. Further, the vendor-operators have now produced a system which the travel arranger can "lock-in" on the biased display (Table 2). Further, the vendor operators are charging fees that appear unrelated to the cost of the service; fees that in many instances are much higher than were formerly charged for the same service.

Thus, the Board rule has now resulted in a situation where the biased displays it sought to banish are back and the smaller airlines that must purchase the service from the larger airline vendors are subsidizing their competitors at the above-cost levels now in effect. Finally, that subsidy is in addition to the yet additional revenues the vendor operator gains from the bias and "halo" impact of having its system in a travel agency.

II. BACKGROUND TO THE PROBLEM

A. Introduction

This is an era of an information explosion—that explosion is both caused and permitted by the computer. The computerized reservations systems (CRS) have become perhaps the single most important tool available to the travel agent. The bewildering variety of services (airline—both services and fares, auto and hotel reservations are but a few examples) and the ease with which it gives that information to the agent make it mandatory that he use the tool. The agencies accounting for 88% of domestic revenues as of June 30, 1983 were automated (Table 3)—it is estimated that number is now in excess of 90%.

Furthermore, the travel agent is in business; the agent wants to provide the customer *service* at the *lowest possible cost.* Being a business that receives payment based on volume of total sales made, the agent wants the ability to make quick decisions. Therefore, it is too time-consuming to search the computer for each and every service possibility; yet it is important that the competitive options of the marketplace be presented in an unbiased and informative manner if the neutral agent is to serve the public in a manner consistent with the public interest.

B. Development Of A CRS that will be attractive to a travel agent in a particular location requires a dominant base of operation

Computer reservation systems are not new; they have been developing over many years. American, for example, began to develop a CRS for internal use in 1953. Northwest itself used a computer for inventory availability in the late 1950's. Therefore, such systems are the product of a regulated era that is now impacting a deregulated era. The systems are expensive to develop; only those carriers with a large base of operations during the regulated era had the route system and financial resources and need to develop such a system. This is not only a Northwest conclusion. The DOJ found that a report prepared by PLOG for United in 1981 revealed that regarding travel agents' decisions on which CRS to acquire: "is of primary importance in the relationship between the agency and the carrier prior to making the decision, and part of this has to do with the schedule dominance of carriers in the particular city. The tendency is to acquire a system from the carrier they are doing the most bookings with, and this in turn is often a function of how dominant that carrier is in the city where the agency is located (DOJ Comments, pp. 62, 63).

The DOJ also concluded that "the existence of incremental revenue as a source of CRS vendor remuneration suggests that a CRS entrant needs to be an air carrier with a significant air presence** (p. 49)."

Not surprisingly therefore a key issue surrounding the CRS dispute is that it is between the very large airlines, on the one hand, and the smaller airlines on the other. It is essentially a battle of "very large vs the small" that had its roots in the route access controls that were used under the regulatory era from 1938 through 1978.

C. The dominance of the larger airlines had its origin in the regulated era where those airlines held the authority to serve most major cities and intercity markets

The position of the "Big Four" of the industry—American, Eastern, TWA and United (to be joined as the Big Five in the 1970's by Delta) was recognized in the early days of industry. Indeed, publications such as the CAB's *Handbook of Airline Statistics* contained the following breakdowns of airlines: Domestic Operations of the Big Four; Domestic Operations of the Other Trunks; Local Service Carriers; Helicopter Carriers; Intra-Alaska Carriers; Intra-Hawaii Carriers; Other Carriers; and Domestic Operations of the All-Cargo Carriers.

The recognition of the Big Four was understandable; those four airlines controlled two-thirds of the 48-state market during 1959 and 1960 (Table 4). Their routes extended across the width and breadth of the nation—United trumpeted the fact it was the "Free World's" largest airline and advertised "Draw a line from where you are to where you want to go. Now you know which airline to fly" (Table 5).

D. The dominance of the big four gave it a decided and admitted advantage in market presence in the regulated era—a presence that extended over into the deregulated era and gave them their incentive to develop and market a CRS

The mere size, *per se,* of the big carriers provided them a decided edge in the marketplace over the smaller carriers—an advantage they acknowledged. Eastern candidly conceded that fact, emphasizing its size in its advertising because—"there's a feeling that a bigger company can do more for you—bigness is related to goodness (Table 6)."

To foster this image of its "size," Eastern's advertising emphasized that it was the second largest passenger carrier in the Free World (Table 6). And one facet of its advertising campaign focused attention on its size, as follows: "Eastern Airlines flies to 107 cities, 7 islands 6 countries and now, 1 magic kingdom." and "As for getting there, we offer more flights to Florida from more of our cities than any other airline." (St Paul Dispatch, October 1, 1971, p. 10)

Eastern's advertising to the public clearly recognized the power of its position as one of the largest carriers in the world in competing with its smaller competitors such as Northwest.

Similarly, the exhibits of TWA—a Big Four airline—in the *American-Western Merger Case* demonstrated the concern of even a giant carrier towards the power of identity in given markets. TWA opposed the American-Western merger solely on the ground of the increase in market identity which the acquisition of Western would produce for American. As TWA recognized, the city identity of a larger carrier permitted it to out-service smaller carriers to middlemen (such as travel agents) because of the size and diversity of its routes. And make no mistake—the Big Four had the coverage and market identity.

Table 7 compares passenger boardings at all stations boarding 1.0% or more of domestic passengers during 1959, the earliest year of record now available to Northwest. American served 15 of those stations and Northwest 10. Because of the superior access to the major markets at those cities, American enplaned 5,793,000 passengers at its 15 stations while Northwest enplaned only 1,353,000 at its 10 stations. Quite clearly the scope of American's routes, as awarded by the CAB, and its operation provided a definite advantage when it came to developing and marketing a CRS.

E. A comparison of Northwest with United, its principal 48-State competitor in the regulated era, reveals that Northwest never had the market dominance necessary to make a CRS attractive to travel agents—United did!

Northwest in the regulated era competed with United for almost 70% of Nortwest's domestic passenger-miles. United was the free World's largest airline and on a domestic basis was five times the size of Northwest (United carried 20,972,000,000 RPM's in 1969; Northwest only 4,540,000,000 RPM's—CAB Air Carrier Traffic Statistics). United served most of the principal traffic-generating centers and the leading intercity pairs throughout the U.S., giving it invaluable exposure to the entire U.S. transportation market. United served *over 70%* of the largest traffic generating centers in the U.S. (The large and medium hubs as defined in the CAB/FAA *Airport Activity Statistics*) (Table 8), and it also served many of the major markets at each of these hubs (Table 9). By contrast, Northwest served less than a third—only 19 of the major hubs, compared to United's 43. Moreover, Northwest's access at these markets was an even smaller fraction of United's. And United, by and large, served the major markets of these large hub cities, whereas Nortwest did not. Further, United's route was characterized by a number of large cities—it served 75 cities on the U.S. mainland with a population in excess of Fargo, North Dakota—and only five the size of Fargo or smaller (Table 10). By contrast, 11 of Northwest's cities were the size of Fargo or smaller—only 18 were larger.

A specific example of the imbalance of the competitive status of United and Northwest was to be found in the access each carrier had at a city such as Boston. The economic power, which a carrier with a route structure and size such as United possesses, gave it an upper hand with respect to the Boston-Upper Midwest/Pacific Northwest markets served by both Northwest and United.

Northwest began service to Boston on September 1, 1971. Its Boston nonstop service was limited by the terms of its certificate to only Milwaukee or the Twin Cities. Boston is a logical point for Northwest to expand its services; indeed, since deregulation it has increased its service at Boston from 2 to 16 daily departures.

The Boston metropolitan area covered a large land mass encompassing four counties. There were 3,300,000 persons within this market area at that time, some of whom would want to travel to Nortwest's destinations. The ability to reach those persons out of the entire population of the metropolitan area was, of course, enhanced by the degree to which a carrier can provide a total range of services—as the Vice President-Marketing of Eastern has pointed out (Table 6). Northwest was limited by its certificate to a very narrow range of services. United's advantage becomes apparent when access to the totality of Boston markets available to Northwest and United is compared. Northwest had but two entry and exit points from Boston—Milwaukee or the Twin Cities (Table 11). United not only had access to Boston from the same points as Northwest, but it could also enter and depart to or from 30 additional cities on a nonstop basis. United had one-plane access to 4.9 mil-

lion 1969 O&D passengers out of a total universe of 7.4 million—23 times the access of Northwest's access (Table 12). Thus, United's marketing efforts in Boston extended directly to 66% of total traffic; Northwest reached to but 3.0%.

A second indication of Northwest's disadvantage *vis-a-vis* United in Boston can be seen from the fact that during 1969 there were approximately 60,000 tickets sold in Boston for travel to and from points served by Northwest (Table 13). (There were 88,830 Bostonians who traveled to and from points on Northwest's domestic system plus Anchorage during 1969. Assuming ⅔ of those Boston residents purchased a roundtrip ticket, there were 59,516 sales to these destination in Boston during 1969.) Assuming that Northwest were to sell 50% of its traffic potential (despite United's dominance), it could expect to sell only 29,758 tickets in Boston during a given year. United, based on its access, could and did sell many times that number—in 1975 its opportunity was basically 23 times that of Northwest (Table 12) and it boarded 8 times as many passengers as Northwest.

Northwest was, therefore, a very minor factor in Boston; a travel agent would have had little reason to want a CRS that accessed Northwest's services. United, however, and American, whose system parallelled United's routes, had the scope of service which could support the CRS because of the market dominance of those airlines in the major cities and markets within the continental U.S. Northwest simply did not have the market presence or revenue enhancement possibilities of a United in Boston—or in any number of U.S. cities other than the Twin Cities of Minneapolis and St. Paul—that would have permitted it to market a CRS in those cities. A travel agent CRS cannot be developed for only one market. The historic advantage of United and American in Boston and in other major cities should not be compounded by a biased CRS.

F. Conclusion

The upshot of all the above is that the regulated era provided the Big Four with the environment and market access to permit development and distribution of a CRS. Those airlines had the CAB to protect their market share in those days but the CAB was an independent body that could at least attempt to make independent decisions on market access. The larger airlines, recognizing that the regulated era required them to find another means of control found it in the CRS. With the scope of the operation provided by forty years of regulation, they had the cities, traffic volumes and agency contacts necessary for such a development.

Significantly, the industry long ago recognized the need for a national reservations and fare system that would provide the type of information to the travel agent that is provided by the CRS—it is not something that was an inspiration of business acumen by the larger airlines. In 1967 the Donnelly Official Airline Reservation System (DOARS) became the first attempt to develop an industry-wide system but failed due to financing problems. The ATARS System was launched in 1971 but terminated in 1971. And in 1976 the Joint Industry Computerized Reservation System (JICR) was started. However, it failed when United, American and TWA announced their intentions to market their own CRS's. ASTA, along with American Express and 12 airlines, launched a final effort to develop an industry-wide system which they called the Multi-Access Agent Reservation System (MAARS). While initially failing, the system eventually becomes Tymshare's MARS Plus, the only independent CRS not owned by an airline. The reason the airlines do not have an industry-wide system today is because the large airlines—those with the market dominance necessary to support such a system—did not want it because they wanted a system they could manipulate to their own ends.

In sum, therefore, the big airlines should not be heard to boast of far-sightedness or business acument in their development of the CRS. The larger airlines had the nationwide market presence in the regulated era that permitted them to exploit their CRS advantage when deregulation occurred. Smaller airlines did not have that opportunity—it is unreal to believe that even if a smaller carrier had developed such a system that a similar system developed by one of the giant carriers would not have had greater impact.

III. THE DOT'S (CAB) CRS RULE SIMPLY IS NOT WORKING

The CAB implemented its CRS rule not because it wanted to regulate but because certain types of conduct which it outlined in its Notice of Proposed Rulemaking "are having an immediate substantial impact on air transportation competition" (p. 7). For example, the CAB was concerned that "objective travel advice" might not be available that would foster air transportation competition on the merits of fare and service offerings. The Board, however, had little time in which to evaluate the problem. ARTA in March 1983—only 22 months before CAB sunset—petitioned the CAB

for rules to eliminate certain forms of bias. While the CAB was studying the matter.[2] its first pronouncement on this subject was in its Report to Congress on Airline Computer Reservations Systems on June 1, 1983. Thus, the CAB had less than two years to study, analyze, and create a rule to handle a technology that is almost exploding in complexity and scope. In view of the limited time and the scope of the subject, it is not surprising that the rule is not working.

A. Bias has not been eliminated

One of the primary purposes of the CRS regulation was to eliminate bias—a systematic inferior schedule display for all airline competitors. The Board rule requires that an unbiased display be provided so that the public might receive the "objective travel advice" to which it was entitled. The Board rule, however, provides the CRS vendor the opportunity to provide a secondary display which is biased. The result has been that in the Apollo systems, for example, an agency manager has the ability to program all of the CRS terminals so that the agents immediately view the biased display favoring United. Locking the CRS into the biased display denies the CRS operator the option to switch to the unbiased display. The benefit of the ability to provide a locked-in, biased display as the basic display was not lost on its CRS vendors competitors. American and TWA have also introduced this feature into their displays (Table 2).

The act of the conversion of the unbiased display to the secondary display, notwithstanding the spirit of the Board's regulation, is a serious problem. Northwest recognizes that a display that is entirely without bias is not possible. However, it is obvious that a correction to the existing rule is required if is to even begin to produce the results the CAB intended.

B. The fees for the service are unreasonable

There are two objections Northwest has to the existing fee schedule common to the CRS vendors. First of all, Northwest does not know how the fee of $1.75–$1.85 per transaction was derived nor have we ever been able to determine a justification for a fee at that high level. Therefore, we cannot be certain that the fee bears any relation to the actual cost of the service or whether it is instead a price imposed without reference to actual costs and one that has been permitted—indeed even suggested—by the CAB's CRS Order. If the fees are unjustified, the smaller airlines are subsidizing the larger airlines. The second problem is that irreespective of the fee being charged, Northwest does not know and has not been able to determine how the number of transactions are counted by the vendor nor is it possible to audit the total charges irrespective of the fee per transaction.

1. The level of the fees

There has been no justification advanced for the level of charges by any of the vendors. We do know that prior to the CRS rule American Airlines charges Northwest $0.25 per transaction. Republic was charged $0.29 per transaction by United.

Northwest has studied prices from a number of sources to try to determine the reasonableness of the fee.[3]

SITA Gabriel, a system used by a large number of airlines for their internal reservations, levies charges containing four separate elements. The first element is a central site charge which includes the expense of the central processing unit and file storage applications such as PNR/inventory. It consists of a scale for domestic U.S.A. and international passengers as follows:

Passengers boarded	Fee per passenger enplaned	
	Domestic	International
0–1 million	$.025	$0.30
1–2 million	15	25
More than 2 million	10	10

[2] At that time pursuant to a congressional request in the Conference Report accompanying P.L. 97-369 of the CAB 1983 Appropriations Act.

[3] As a practical matter, Northwest may be paying considerably more than $1.75 per transaction. To date, we have not been able to reconcile the segment charges calculated by the vendor. Their billed number of transactions always exceed the number our reservation system tabulates (See section B–2).

The second element is communications. For a Type A message which consists of the CRT input/output, the charge is by character count per CRT. The Type A transaction discussed here will normally be less than $0.05 per message and probably closer to $0.02. Each passenger enplaned generate 10-12 CRT messages—amounting to $.20 per passenger at $0.02 per message.

Not included in either of the above charges are two other elements: CRT costs and maintenance. Both the airline and the agent have the option to buy or lease CRT's. If the airline decides to use the maintenance capability of SITA, charges would be as follows:

Unit:	*Per unit per month*
CRT	$27
Printer	30
Modem	25

In sum, the total cost for SITA Gabriel should not exceed $0.50 per transaction.

It is our understanding that American Airlines' price for commuter airlines is $0.38 per passenger boarded and that Continental's CCS price was under $0.30 per passenger boarded. DOJ indicates American projecting 60 million segments through Sabre in 1981 concluded each carrier should be charged 47 to 50 cents per booking (DOJ Comments, p. 119).

Northwest has prepared an estimate of its cost to determine the level of fees. Northwest estimates the cost would not exceed $0.65 per passenger boarding. This is a very conservative projection. It assumes a five year write-off of a central site facility which cost $15.5 million five years ago that realistically at today's prices would cost no more than $9.0 million $9.0. Further, the $.65 is the cost per passenger boarded; the cost per transaction would be less than that.

2. The amount of the fees

Northwest also is suffering from the inability to determine the basis for the monthly segment billing charges. Table 14 compares the number of Apollo and Sabre transactions United and American billed Northwest with the number of such transactions indicated by Northwest's POLARIS system.

For 1984, Northwest was billed by American for 1,453,520 more transactions than our own tabulations indicate; United has billed us for 897,299 more transactions than our records indicate (Table 14). At current fee levels, these differences result in a possible overcharge of $8.8 million per year. To date, we have not been able to determine how these airlines arrived at that number of segments. We do know of and have complained to United of billings for city-pairs Northwest does not even serve. Be that as it may, Northwest must still pay the costs because we must be in Sabre and the CRS's of the other airlines.

From all of the above, it is clear that there is no justification at the present that would support the fees levied by the Big Five. This alone warrants investigation; the larger airlines should not by virtue of the leverage the CRS system have the ability to require that the smaller airlines subsidize the marketing power and service of the larger airlines. This would be contrary to the interest of deregulation because it places the power to control the industry in the hands of a few, already powerful, airlines whose control will be for their—rather than the public—interest.

C. Fare bias

United has constructed APOLLO so that if the Agent requests a display of Northwest's fares in, for example, the Twin Cities-Washington market, the agent will be informed where United has a matching fare level (Table 15). However, if the agent requests a display of United's fares, the agent will not be informed of any other airline's matching fares. Moreover, if the agent wants to know Northwest's fares in the Seattle-Tokyo market, the display indicates only United's fares (Table 16).

These tactics clearly indicate deliberate intention on the part of at least one of the major CRS vendors to make certain the agent does not receive the "impartial travel advice" the CAB intended be provided by the CRS.

D. Other

The complexity of dealing with a computer and the sheer number of transactions makes it almost impossible to monitor the actions of the vendor-operator. Northwest, however, has evidence of interference with the information.

As Northwest (and all airlines) close and open space and availability by fare class on each flight, a message is generated to all airlines. Northwest finds instances of where SABRE, PARS and Date II systems closed the Q fare availability in response to Northwest's instruction. However, United, which must have received a similar

message, frequently continues that fare class as available for sale on Apollo. Per the participating airline contract, Northwest must accept the reservation and ticket at a fare level that it did not permit. The result is that United forces the lower fare traffic on competing airlines, closing out the co-host space and retains the higher fare traffic for itself.

Northwest has no way of determining how often this is occurring. Nevertheless, given the propensity of the major CRS vendors to derive every advantage from their CRS, Northwest believes that steps are necessary to make certain no vendor-operator has the capability to manipulate other airlines bookings.

F. Automatic validation

Industry practice had been that the first airline on the flight itinerary of an interline trip was the airline of validation. The advantage was that the validation airline received the revenue from the sale and the float on that revenue until such time as the revenue is distributed among the participating airlines. The advantage was that all airlines on at least an impartial routing basis had the opportunity to share in this revenue.

A relatively impartial system of distribution was not acceptable to one CRS vendor-operator. It programmed its CRS to make itself the validating carrier in all itineraries in which it appears irrespective of its position in the routing. The other CRS vendors were quick to implement the practice—recognizing the revenue gain to the operator and harm to the competitor. The effect is to divert revenue from other airlines; another form of the revenue diversion from the smaller airlines by the mammoth CRS operators.

IV. HARM TO NORTHWEST AND THE SMALLER AIRLINES FROM THE CRS SYSTEM

As demonstrated, the CRS vendor-operator airlines have already circumvented the CAB established rules to prevent display bias. There is therefore no reason to believe that the degree of harm will not revert to the very severe degree that existed prior to the enactment of the rule.

The fact that vendor-operators do receive substantial revenue "enhancement" from their CRS operations should not be questioned. The vendor-operators frequently argue about the cost of their CRS operations; a prudent management would not make that investment if it did not have a substantial and beneficial impact on their revenue.

And make no mistake, the bias that produces that revenue enhancement has returned. As already mentioned, United, recognizing the revenue enhancement of a CRS contract with travel agents has offered a travel agent which at present does substantial business with Northwest the following inducement to break his SABRE contract.

1. Free APOLLO for five years.
2. A 10% commission override on all business written on UA.
3. $500,000 (Five hundred thousand dollars in cash).

United would not make this offer if there was not in store for it the revenue enhancement necessary to make it a paying proposition.

The bias which will produce substantial revenue enhancement for the CRS vendor-operator has clearly—if it ever left—returned. The degree to which the smaller non-vendor/operator airlines will be impacted is difficult to determine. The damage is a function of how the negative impact of that bias effects each airline and is a product of the shifting criteria under which the display listings are developed. Those criteria are constantly changing as the vendor-operator manipulates the CRS to favor its own operation.

For example, connecting hub bias is a very serious problem as the major CRS vendors design "neutral" procedures that best accommodates connections via their hubs. Northwest is reviewing these bias problems that have the potential to be at least as damaging as any aspect of the schedule bias issue. Also other enhancements such as advance seat selection may not be made readily available to other carriers in the CRS vendor's systems. This is a very serious problem.

A. The revenue enhancement of a biased system is very great

The DOJ comments on the CRS as presented to the CAB are most enlightening because they, by virtue of discovery procedures, have access to many of the internal records of United and American which indicate their estimate of "revenue enhancement" to the CRS owner-operator which is, of course, a euphanism for revenue diversion from the remainder of the airlines.

1. American

DOJ's discovery process produced the following information: "American has done numerous studies confirming that it gained an airline passenger sales share advantage because of the placement of SABRE with subscribers (AA 080974-1030). In 1979, American estimated that it received $58,000 annually in additional sales per SABRE location and that it received 49.5 more passengers per month per SABRE location. American had calculated that it could make a 15 percent return on SABRE with only .7 more passengers per month per location (AA 035395-402, at 035427-28). A later analysis indicated that in 1981, an average SABRE location generated $21,000 incremental revenue for American (AA 072607-646). DOJ Comments, p. 81.

In a similar vein, Robert Crandall, President of American, has estimated American generally gains 8% to 12% in incremental revenues from its display preference from SABRE agents over non-automated agents. It loses about the same percentage when agencies are automated by other carrier's systems (Travel Weekly, July 4, 1983). Sabre's biases were eliminated, "we aren't sure it (computerized reservations) is a business we would choose to be in" (Wall Street Journal).

2. United

DOJ found that: "The purpose of APOLLO display bias is to increase United's air transportation revenues at the expense of competing carriers." United executives, up through the Chairman of the Board, share the view that, "having APOLLO in an agency produces additional transportation revenue for United" (UA 2937). As one United executive said, "enormous amounts of revenue are at stake every day" (Blackman Ex. 17 at 2).

"It would be difficult to calculate the incremental revenue accruing to United from various forms of APOLLO display bias, but the carrier certainly believes the amount is great (See Zeeman Tr. at 34, 37-38). United makes all manner of business decisions in the APOLLO program on the basis of their implications for incremental revenue, including which travel agencies to automate or convert from another CRS to APOLLO which airlines to have as cohosts, and especially, which new forms of bias to develop. United believes that at each SABRE agency converted to APOLLO it will realize a 10 percent increase in the air transportation revenue, and that such revenue will rise five percent at each previously unautomated agency that becomes an APOLLO agancy (UA 12207, UA 20628)."

"Some APOLLO cohosts and carriers that want cohost status in APOLLO have made their own estimates of the incremental revenue benefits resulting from improved display to determine the value of being an APOLLO cohost. Both Frontier and Republic estimated an annual benefit of APOLLO cohost status of about four percent of their total revenue (FAS 568 at 569; UA 28166)" DOJ Comments, p. 107.

B. Estimated impact of increased fees/passenger revenue diversion due to the CRS on Northwest

An illustrative calculation from the revenue loss Northwest suffers as a result of the increased fees in the CRS's of the major airlines set forth below is substantial. The increased annual expense to Northwest, based on 1984 Apollo and Sabre transactions, is an estimated $8.8 million computed as follows:

	Passengers	Charges per passenger		Additional charge at new rate
		Old	New	
American	4,196,564	$0.25	$1.75	$6,294,846
United	2,964,079	1.00	1.85	2,519,467
Total	7,160,643			
Additional expense				8,814,313

And this would be even greater had the United fee of $1.00 not been excessive.

The passenger revenue diversion form Northwest to American based on the bias and halo impact is estimated at $31.5 million based on the assumption that Northwest's Polaris counts rather than the Apollo/Sabre calculations are correct. If Apollo and Sabre transactions were used, the estimate would be higher.

Number of passengers per NWA Polaris count

CRS operator:	
American	2,743,044
United	2,066,780
Total	4,809,824

Diversion due to Halo/Bias

Percent	15
Passengers	721,474
Est average fare	$109.18
Revenue loss potential	$78,770,487
Adjustment for no-shows/twin cities hub factor (percent)	40
Revenue loss	$47,262,292

This actually understates the problem; for example, to the degree American or United have by virtue of their CRS driven Northwest from a market, there obviously are no passengers in a year such as 1984 to reflect the diversion.

V. REMEDIES

Despite the CAB rulings, the CRS systems operated by the major CRS vendors, remain highly biased and the prices to the airlines are excessive. Because passengers expect travel agencies that are not carrier sponsored to be neutral, the CRS systems damage the ability of an individual consumer to obtain neutral travel agency service. To remedy this problem the following is proposed:

A. Intensified DOT regulation of CRS systems

While changes and improvements can be made in the DOT regulations, it is probably not feasible to eliminate all of the bias and other unfair competitive practices. It was believed that great strides had been made in the CRS decision and yet the CRS vendors immediately found loopholes. While it is important for DOT to tighten current CRS regulations, this is not the answer in the long-term as discussed below.

B. Legislation should be passed requiring divestiture of CRS systems automating agencies that account for more than five percent of sales by U.S. agency locations

The major CRS vendors should "spin off" the travel agency systems to data processing corporations. Competition and the need to provide an attractive product to travel agents would eliminate many of the insidious biases present in the current systems. Further, it is likely that the marketing information and competitive information would be distributed evenly to all carriers by such vendors.

Divestiture, of course, has complexities but this can be accomplished in the same manner as other corporations shed lines of business.

C. In the alternative, airlines should be allowed to purchase shares on an equitable basis in system automated travel agents producing more than five percent of domestic revenue

If the major system vendors are not required to divest, an alternative is to allow other carriers to purchase shares in the systems that control more than 5 percent of sales by U.S. agency locations. This would eliminate the programming and the display bias to a great extent provided programming, display procedures, market information and charges would be subject to consultation and negotiation among the participants in the system. Charges should also return to reasonable levels.

Whatever choice is made, the most important issue is to prevent the two largest carriers in the U.S. from dominating the U.S. air travel distribution system to the point that other carriers do not have an effective means of distributing their product.

Senator KASSEBAUM. Thank you very much.

It seems to me that all of you have offered concrete evidence of what has happened to your bookings since the CAB rule went into effect, or most of you have anyway, with specific numbers, largely as a result I would guess of the secondary bias. Is that not correct?

[The panel nods in the affirmative.]

Senator KASSEBAUM. I think that has been the testimony certainly on the part of several of you, and it is too bad that DOT, since

they believe that there has not been any real evidence or time to show that there has been a trend, cannot make better advantage of these figures in determining what seems to me clearly a trend that has resulted, if your bookings are any indication of what has happened since the CAB rule.

I would like to ask you, and I would sort of address this to the whole panel, how hard, and exactly what you do to work with the travel agents directly to sell your airlines. Is this something that you make an effort to focus on, and how successful is that? Anybody?

Mr. MAY. I think we all would do the same thing. We do have a substantial sales force who work with the travel agents encouraging them to book on our airline, and we pay overrides, as do American and United and the big carriers.

I think the disadvantage we have on the override is that when you have a dominant carrier who maybe has 40 or 50 percent of a travel agent's bookings already, and we offer an override let us say we are offering an override of 5 percent—our normal commission is 10 percent, and we offer an override of another 5 percent to book on Republic, and could even increase that override say to 10 percent—and we only have 10 percent of the travel agent's business, if United or American who has 40 or 50 percent of the travel agent's business comes in and says well, if you will book that additional 10 percent with us, we will raise our overall commission from 4 percent to 5 percent, there is a tremendous incentive for the travel agent to book on the dominant carrier, and I think that is the problem we have today.

No matter how much we want to sell our airline, the travel agent obviously is in business for himself and he is interested in making a profit, and the commission structure that American and United use in conjunction with the CRS system is strongly in favor of their putting the passenger on their airline than on ours. We could give you illustration after illustration—we do not want to take the time this morning—where I have talked to passengers who were routed very circuitously and much more expensively to stay on American or United when we had a competitive flight that was much shorter—better connections, or through-plane service—where they were put on American or United more circuitously—obviously because the travel agent makes more money putting them on American and United than they do on us because of the way the commission structures are set up, and we, being a smaller carrier, do not have the ability to attract the kind of revenue to the travel agent that American and United does.

Mr. BAKES. Madam Chairman, can I try that just for a minute? Obviously we all work as closely as we can with travel agents. They are anywhere from 60 to 80 percent of the bookings for domestic airlines, and those figures are even higher for international bookings.

We are sitting there with handcuffs on in doing that. For one thing, just a few examples, we do not have today at Continental the marketing information that months ago the CAB ordered be made available. Today we are still waiting for that marketing information that is available to American.

That marketing information is invaluable in knowing what to say to travel agents, what travel agents to go to, what are the booking patterns. That is No. 1.

No. 2, yes, we all have sales forces, but American and United have sales forces that are very much supported by the excess fees we just testified to earlier, sales forces that are meant to support Apollo and Sabre in these systems that are getting these supra-revenues and supra-profits. So the sales forces in just the shear numbers dwarf what we are able to put together.

And third, after all the talking in the world with travel agents, the fact is that time is very, very important to travel agents. Their efficiency is critical to their business. It is a very thin margin business being a travel agent. Ninety-one percent of the bookings are made in the first screen because of that fact—and that is American's own figure—because of the fact that time is money. All the talking in the world does not change the fact that the economic structure and economic incentives for travel agents are not to have to leap over huge barriers of biased information and secondary displays to try to get the best product for their customer. Even though that is their goal and most travel agents try very hard to do that, there are barriers in front of them that cost them a lot of money.

So no matter what we say to travel agents, the fact is the computer structure they deal with makes it hard for travel agents to do their job.

Senator KASSEBAUM. Now you said that 90 percent of the bookings are made on the first screen?

Mr. BAKES. That is American's study of a couple of years ago.

Senator KASSEBAUM. Yet the bias supposedly has been removed and it is the secondary bias that has become so much more predominant.

Mr. BAKES. There is still bias in the primary screen. We should not lull ourselves into believing the rules changed that. The rules did say that you cannot have bias by the name of the airline. You cannot bias it in favor of a particular airline. The surrogate and the substitute for the name of the airline is then what rules you use to show which airline is coming up first.

What the rules predominantly now do—and they have changed since the November 14 rulemaking—the rules that have now been programmed into the computer are rules that by and large favor the type of airline systems that American and United have. That should be expected. They are neutral, but they are neutral in the sense that they very much bias certain kinds of systems.

The secondary display of course is explicitly biased, and we find of course there are tremendous attempts by the airlines that own these systems to get travel agents to use the secondary display. There are a lot of suggestions by the airlines that the travel agents do that. They try to facilitate by having this new system where you can lock it in for the whole travel agency so every CRT, every computer terminal in that travel agency, whether it be 15 or 500, only will go to the secondary display.

Senator KASSEBAUM. I would like to ask, because I just do not quite understand how this works, each of you have market areas where you are dominant. It is your hub area, for instance.

Does most of the trouble come with the CRS when you are a connecting flight? Because obviously when a passenger is making reservations in your hub areas or where you are predominant in each of the airlines in the market, naturally a passenger would turn to that airline, whichever one of you it may be. So is it in the connecting flights where you find the most difficulty in making reservations?

Mr. KUTZKE. I think there are several answers to that. First of all, in a market such as Minneapolis-St. Paul where Northwest is the dominant carrier, and there is also Republic, the agent will first think of Northwest—and then Republic.

Senator KASSEBAUM. Right there you indicate some of the problem.

Mr. KUTZKE. But we hope they will think of us first.

At Minneapolis-St. Paul we are not as impacted by the bias in the displays as we would be in other points. Where we really take a beating is in a market such as Cleveland where we are a smaller factor in the market and where we are offering services to only a handful of cities. In those places, the bias can be turned up and that can impact our connections. People from Cleveland going to the west coast may connect over Chicago or Minneapolis or Dallas or Houston or Denver. You will find there is a tendency for the CRS systems to produce connections over the Sabre or Apollo connecting hubs in Chicago, Denver, or Dallas.

In fact, one of the difficulties since deregulation and since the CRS systems have come to predominance is created by the power American and United get out of those systems. In their major markets this probably prevents competitors from offering the kinds of services they would otherwise provide because American and United force them back out of the market with their CRS systems.

There are a number of examples of that shown in the Justice Department's study, and we have every reason to believe it still goes on in the programming of the systems despite the CAB regulations.

To follow up on the earlier question, to try to defeat bias we have 12 people who do nothing but monitor the Apollo, Sabre, Datas II, and Pars systems. These people train agents to work with our field sales force, on how to overcome enough bias in the system so that our sales force can actually sell the Northwest product.

We should not have to do that. We should not have to train people how to actually get the Northwest seat. That is a very serious problem, and very expensive.

Senator KASSEBAUM. Has it been successful?

Mr. KUTZKE. Not as successful as we would like.

Mr. MUSE. Concerning what we do to try to offset it, obviously a small carrier cannot have an army of people calling on travel agencies. And really, as he says, a travel agency's time is money, and they do not have time to sit and have a cup of coffee and chat with airline representatives.

A few weeks ago, though, I did take 1 whole day myself and I visited in Austin, TX, the 11 travel agencies who we do the most business with, and I gained an education. We have two nonstop flights, for instance from Austin to Los Angeles. It is pretty good service for Austin, TX. But American Airlines, who has no nonstops, only connecting service through DFW, and who charges $647

I believe for roundtrip versus our $198 unrestricted roundtrip fare, gets 80 percent of the business. I am sure Sabre has got something to do with that. But even more to do with it is AAdvantage. It is more miles. They get—there are, for instance about 12,000 people working for IBM that are in the travel agent computer system there in Austin.

There is not a one of them that does not have that AAdvantage card. I think that is more the reason why people pay two and three times as much money to travel circuitous routings as—it is as much a reason as Sabre and Apollo themselves, the bias included in that. That became evident in talking to the managers.

I was seat partner of an owner of a very large travel agency in Texas just a few weeks ago, and he was relating to me during our 45-minute flight the many horror stories about the computer systems and the tax-free travel programs for frequent fliers, and I told him, I said, you know there is going to be a hearing in Washington on March 19. They would love to hear what you have just told me. His response to me was, well, if you can find somebody that will give me $5 million for my business between now and then, I will be happy to do it.

Senator KASSEBAUM. Senator Exon.

Senator EXON. Madam Chairman, thank you very much.

Gentlemen, thank you for your very interesting testimony. The questions that I am going to ask and the statements that I make do not necessarily indicate a point of view, but are an effort on my part to get to the bottom of some of the concerns.

In the first place, I wish you people would quit having an apologetic attitude in coming before the committee, which I sense from all three of you. You all have said in one degree or another, we are sorry we are here because we are free-enterprise boys and we do not believe that Government should be involved in these practices. Please do not take that attitude.

It sounds to me like you have got a problem. You talk about the bigs taking over everything in the airline industry. It reminds me of the line of reasoning used by some of us who are trying to stick up for the family-sized farmer today. If you put him out of business and you go to the corporate farmers, you are going to see food prices go up dramatically. That is why I have this worry about deregulation, and have—although it was passed before I came to the U.S. Senate.

We have got another problem on our hands right now with the sale of Conrail. The Department of Transportation has advanced the plan that, I think for all intents and purposes, would give them a monopoly, or a substantial monopoly to one railroad in the eastern third of the United States. I have some concerns about that and what is going to happen to rates when one carrier gets too much of the marketplace. I think that is what you are saying.

But let me get into a question or two about how we resolve this matter.

Mr. May, I will start with you, because you were the first to testify on this. Let us suppose that rather than United's Apollo and American's Sabre, we had a situation today where we had American Sabre and Republic Airlines had developed, invested money in and developed the Apollo system, and you were sitting out there as

the next person up at the table, rather than sitting there where you are now.

Very seriously, I am asking you, can you be a little bit more specific on how you would solve the problem that confronts United Airlines? Other than just selling the stock in these two systems, which I assume if you sold the stock you would have a board of directors who would run it, and run it on a fair basis without any implied or real favoritism to any airlines. But other than that, can you be a little more specific as to what you would do if you wanted to be as cooperative as you want United and American to be in solving this problem?

Mr. MAY. Well, I understand where United and American are coming from. I assume that if we had the system and they did not, we would have some of the same incentives. We are in the business to make money, and obviously they have a very easy way to do that by overcharging for the product because they have pretty much of a monopoly and also the ability to divert revenues from other carriers. We are all trying to capture more revenues, and I think if we owned the system we would probably do what they are doing.

Senator EXON. Thank you for being forthright. Let us lay it out on the line.

Mr. MAY. That is the problem with it, that fortuitously they have the system because in a regulated environment they were big carriers and they had the ability to get the thing into effect. Years ago we tried to put together an industry-type reservations system. That makes sense, to get the travel agents and the airlines together and have an industry-owned system would make sense.

We wanted to do that some years ago. But if the major carriers will not make their seats available to that system, then you cannot sell the system. So the ability to design an industry system depends on the cooperation of the giants, and there is no incentive for the giants to say we would love to have an industry system and we are going to throw all of our stuff into the pool. There is nothing that would give them the incentive to do that.

If I was a man of good will and a good heart, I would say, well, yes, I understand the problem the carriers have, so I am not going to bias my system. I am going to make a 15-percent profit instead of a 500-percent profit. But I do not think corporate life is like that, and that is why we have some of the monopoly rules that we have today—to keep people from abusing what they own.

There is no question that they own a good system. It is a tremendous system, and it is a big advantage to us and a big advantage to the travel agencies. We have to have it for the industry to work.

But it gives them so much of an advantage over us that I am concerned that if we do not do something soon, that the industry will trend toward an oligopoly, and if that happens we are going to have more abuse than we have today. The thing that we have tried to do with deregulation—to make an airline system that is competitive and keeps prices down and so on—is going to go away if it gets in the hands of three or four airlines.

I really think that divestiture, having an independent system, is by far the best solution. As a free-market economist, it goes against my grain to say that, but in looking at the ineffectiveness of the

rules so far, I am not optimistic that rules alone would solve the problem.

Senator EXON. Thank you, Mr. May, for your forthright answer. Let me just follow up on that a little bit. I guess that if I had the money and the know-how to get into some facet of the airline industry today, and if I could buy American, Republic, or United, Muse, Continental, or another airline, or if I could buy Apollo or Sabre or both of them, I suspect from your testimony that I might get a better return on my investment by buying into a computer system that services airlines rather than owning an airline. Is that a sound business decision? Would that be a sound business decision on my part from your perspective?

Mr. MAY. It certainly would. You would get a far greater return off the CRS system than you would off of owning an airline.

Senator EXON. Would you please let us know when that stock comes on the market?

Just to kind of put this in perspective, you are asking the Government to come back in here—and do not apologize for that, again, because in the real heyday of the big corporations and big business in the 1920's before the crash, then we recognized that monopolies and trusts were not good. In some places, the Government had to move in.

So I think that from your perspective, that might be one thing that we should remember.

One last question, Madam Chairman, which I will ask of Mr. Bakes. Mr. Bakes, you and your associates are here asking for us to do something about the obvious, or at least the alleged competitive advantage, that American and United have at this particular time. I will be interested in listening to your testimony to rebut that.

But let me ask you a question that I hope is not unfair. I understand that Continental enjoys a lower operating cost than most of its major competitors as a result of Continental having shed its collective bargining agreements in the reorganization procedure that you have recently gone through. If the competitive advantage that you say flows to the CRS operators should be taken away from them, then why should we not do the same thing to the competitive advantage that you enjoy today?

Mr. BAKES. That is not an unfair question at all, Senator. Continental, like a lot of other airlines, had struggled hard with the rigors of the marketplace when deregulation came about, and that marketplace put the old Continental Airlines literally out of business after a half a billion dollars of losses.

I could go through, as we have in many, many forums in the bankruptcy court which we are still going through, about how we had to go down to 4,000 employees from 12,000 employees, and had about 3 days of operating cash left. A number of the reason why we were in that situation, not all of them, was a cost structure where we could not compete, and a marketing situation brought about in part because of the bias in computerized reservation systems that did not allow us to compete effectively.

We have made a number of changes, and that 4,000 employees 1½ years later is now 10,000 employees, and that is something I am very proud of. We have had the opportunity to fail in deregulation and chapter 11, as it does for all businesses for 40 years, gives

the opportunity to resurrect yourself if you can put a business back together.

Our operating cost advantage is an advantage with some carriers, and we do not have an advantage with other carriers. Muse Air has lower cost than we have. American Airlines, with their new cost structure with what they call their B labor rates, has in effect an airline larger than Continental with labor rates as low or lower than ours.

So we are all going to continue—American, United, and the rest—to adjust to this cost structure. But the issue here is not who has the advantage of an airline and who does not. The issue here is the consumer. Even if Continental Airlines had an unfair advantage not due to monopolistic practices but something else, it would really be irrelevant. The relevant thing to focus on is the American consumer.

With these pervasive uses of these systems that are explicitly biased, where the financial incentives in a competitive environment are to make more and more money, and that is how they should be, there has to be some intervention, structural intervention, that takes those incentives away and therefore protects the consumer—not to protect competitors, but to protect competition.

Senator EXON. Thank you, gentlemen.

Mr. MUSE. Could I speak to the question you asked, sir?

Senator EXON. Yes.

Mr. MUSE. I am the only one who stated that he did not necessarily agree with divestiture. In fact, I think that divestiture can do great harm, particularly if the systems were forced to be sold to an outside party based on a price-earnings ratio, for instance, of the profits that they are now making. All that divestiture would do then would be to legitimitize the exhorbitant rates that are now being charged, and American and United would take the capital gains, tremendous capital gains that would be created.

So it seems to me that divestiture can come somewhere down the road in connection with a bias problem, but it does not have anything to do with the rates being charged for the services rendered by these systems.

The only solution to that is regulation. And again, I do not want to apologize, but we need regulation where there is a true, honest monopoly, and that is what we have with Sabre and Apollo, and divestiture can be very damaging unless the real problem is corrected before divestiture. It is very possible that divestiture would go to an industry-owned company, and who owns the industry? All you are doing is taking it out of one pocket and putting it in another.

Senator EXON. Thank you very much. I wish that I was as enthused about deregulation as you all seem to be, but time will tell whether it is going to be beneficial to the consumer, and I agree that that is the bottom line consideration.

Thank you, Madam Chairman.

Senator KASSEBAUM. Thank you, Senator.

Thank you very much. We greatly appreciate the testimony of all of you.

The next witness is Mr. Crandall, president of American Airlines.

Mr. Crandall, I guess you are one of the villans of the plot, so to speak.

STATEMENT OF ROBERT L. CRANDALL, PRESIDENT, AMERICAN AIRLINES, INC.

Mr. CRANDALL. Senator, I am very glad to be here to have an opportunity to speak, having heard my own villany described in such lucid terms.

I welcome the opportunity to restore my reputation in your eyes, and perhaps modestly in the eyes of others. I shall, in response to your request, attempt to be brief.

Senator KASSEBAUM. Thank you.

Mr. CRANDALL. Let me begin by saying that, at the risk of seeming a bit immodest, it seems to me that the Sabre system, which is what we call our CRS system, is in fact one of the great success stories of the modern free-enterprise world.

Some years ago we, American Airlines, and I personally sought support for an industry system, indeed sought that support from some of the very men you have heard testify here today. They declined to join with us in the creation of an industry system, citing the risks, the investments, they used those dollars elsewhere. American was persuaded that travel agency automation was a concept whose time had come.

We went forward at considerable risk and at great investment. We have created a system which is very proconsumer. Let me throw in, parenthetically, if I may just one interesting statistic. At the time of airline deregulation, there were about 400,000 airline fares in the United States. Today, there are 7 million, 7 million individual fares reside in Sabre and can be quoted from the Sabre system at the stroke of a button, and there simply is no other way that consumers in this country could have the benefit of the plethora of competitive alternatives that now exist.

So those who seek now—who criticize Sabre are those who chose not to create that system. They now seek the rewards of our risk and investment, and I am certain it will come as no surprise to you that we do not share their point of view.

I think it is extremely important, before we launch into those subjects in which I know you are most interested, to recognize just what the size and scope of the subject we are discussing is. Sabre is, to our knowledge, the largest real-time commercial data processing and communications system anywhere in the world, with about 70,000 individual devices, at thousands of locations across the country. The system is capable of processing at its central site in excess of 1,000 messages per second, and in data processing terms that is an awe-inspiring accomplishment.

I do not think all of that will mean very much to you, because unless you are an active participant in the data processing world it is hard to appreciate such things. I do hope that as you consider this important issue, that you and your colleagues and members of your staff will come to Tulsa and let us show you the system and challenge the system to give you the lowest fare or the best service, look at the question of what kind of displays come out of Sabre, ex-

ercise the system and see what it can do for you and for consumers across the country.

Let me turn now to two of the issues in which I know you are most concerned. One of them is bias. Bias, of course, is a perjorative word, and bias therefore has in my opinion gotten a rather bum rap. The term "bias" simply refers to the preferential sequentialization, if you will, of flights on a screen and is the method by which we in the first place found incentive to develop such a system.

In the absence of bias, in the absence of the ability to use the early system in its early developmental days to generate more airline business, there would have been no Sabre and I dare say no Apollo, and thus no argument today. Bias was a bridge between the inadequate revenues we could get for an early system from other airlines and from travel agents to which we added bias revenues to provide the incentives to allow us to create the system. Thus, I hope you will not judge bias too harshly.

Now I defended bias 2 years ago in testimony before representatives. But even then American was beginning to think in different terms. In the early years of the system, bias produced more American sales, but at the same time it did prevent us from optimizing Sabre as an information system. And as the system worked toward maturity, we recognized that without bias Sabre could become an even better system, and thus when the controversy regarding bias reached its peak in the summer and the spring of 1984, we cooperated fully with the Justice Department and the CAB in creating the rules that now exist.

Make no mistake, there is no bias today in the primary displays regardless of what you have heard. If there is bias in the primary displays, it is bias on behalf of the consumer, and I shall be happy, if you wish, to go through with you how we sequence those flights today. To my knowledge, they favor no one but consumers.

It is true that bias has now crept back into the secondary displays about which you have heard. I think that the presence of the secondary displays in itself may not be harmful, but certainly the ability to lock a travel agent into that secondary display is, in our judgment, contrary to the spirit if not the letter of the CAB rule.

American's position on this is clear. We are prepared to give up secondary bias and do so immediately. So long as competitors offer secondary bias, we must as well. The consequence of not doing so is to lose business. So our position on bias we think is rather clear.

Another issue on which you heard considerable comment is price. We have submitted extensive written comments which establish, we think that our price of $1.75 is reasonable; that the internal rate of return we are earning is very consistent, and indeed a bit below that typically earned by other businesses characterized by similar risks and similar levels of investment.

The data we have given you has been meticulously prepared in conjunction with Dr. Jerome Hass of the National Economic Research Association, Arthur Young & Co., and an internal task force.

I might say that our cost to do a reservations transaction is nowhere near the 50 cents you heard Mr. Muse cite a few minutes ago. It is, in fact, well in excess of $1.30, a figure well substantiated

by the data we have given you. And frankly, when looked at in terms of value of service—that is, what do you get for your $1.75—we think the participants in Sabre are getting a great buy.

Now if, despite all the data that we have given you and will give you, you conclude that the price of Sabre is too high, what remedies are there?

There has been talk of divestiture. If I can assume that you mean divestiture and not confiscation, Mr. Muse is quite right, divestiture will mean not lower prices but higher ones, because we will simply have an arms' length sale to somebody else.

There has been talk of a joint system. A joint system at this point is simply impractical. Apollo and Sabre and the other systems are incompatible. There is no computer system large enough to do the whole job. A joint system would eliminate innovation and innovation and competition. And on that point, I hope you will read our written testimony, because there we compare the state of CRS in this country with the state of CRS in other countries. In this country, Sabre and Apollo and other systems will do things the other folks have not even thought of yet, and a joint system of course will create management by committee.

There are really only two alternatives, it seems to us. One is to regulate; the other is to let the marketplace work. I would leave you with the question: Do you really want more regulation? We have produced the world's best travel agent CRS system, one which produces benefits for other airlines, one which produces benefits for consumers, one which produces benefits for us as its sponsors. We think the marketplace is a far better mechanism.

That concludes my statement, Madam Chairman. I shall be happy to try and respond to your questions.

Senator KASSEBAUM. Thank you very much, Mr. Crandall.

Senator Exon has to leave, and he would like to ask a few questions.

Mr. CRANDALL. Yes, sir.

Senator EXON. Mr. Crandall, thank you very much for your testimony, and I will read and look at the other things that you have, as well as all the other testimony that was given here, because I emphasize again that I think this is a critically important issue.

Let me ask you a question that is not designed to be unfair, but is to try and get to the heart of this matter. Skipping bias for the moment, would you, American Airlines, sell Sabre at a reasonable capital gain? Reasonable is a term that you can play around with, but maybe a substantial capital gain, or a reasonable substantial capital gain?

And agree to pay $1.75 for reservation bookings?

Mr. CRANDALL. Well, Senator, let me answer your question, if I may, this way. Anything is for sale. If a competent buyer with adequate financial resources came forward and was willing to capitalize the future earnings stream of Sabre at a competitive market rate, we would be pleased to sell it. The purchase price would be large, because it is a profitable business and it is not a business we choose to get out of, and if in fact we decided to sell that business we would have to have a capital base with which to acquire another business. But anything is for sale.

If at that point the new vendor were willing to sell that excellent service at $1.75—and frankly I doubt that he would be; I think he would raise the price substantially—we would pay it with pleasure, because it is a very competitive price for the service which is offered.

I might make this point on this whole subject of $1.75. You know, there are many ways to judge what somebody does. Making an airline reservation is an enormously complex undertaking, a very complex transaction indeed, looking into an enormous data base and using very expensive computers and very, very consequential communications linkages.

Look, for example, at what others outside the airline business willingly pay us to make reservations for them. Car rental companies, hotel companies, people that send flowers, limousine companies, and so forth. There is no compulsion for them to be in the system, and they pay unit rates substantially above $1.75, and they view the system as a bargain, as a very effective and very cost-effective form of distribution.

Senator EXON. Thank you, Mr. Crandall.

Thank you, Madam Chairman.

Senator KASSEBAUM. Thank you.

Mr. Crandall, I wonder if you would compare, or could compare the American bookings as a percentage of total Sabre traffic from October 1984 until today, or say February 1985.

Mr. CRANDALL. What percentage of our business comes through Sabre?

Senator KASSEBAUM. Since the CAB rule.

Mr. CRANDALL. To my knowledge, Senator, it has not changed materially. I would be happy to get the actual facts and send them to you. The percentage of our business that comes through Sabre or through travel agents has been rising. The percentage of our business that comes through Sabre has been rising, but neither was materially affected by the imposition of the new rule.

Senator KASSEBAUM. So you feel very confident that figures would not show that the rule changed your bookings?

Mr. CRANDALL. I think, if anything—I am not quite sure what you are looking for, Senator. I think perhaps—are you looking for something having to do with the bias issue?

Senator KASSEBAUM. Well, I am wondering if you can show that there was change.

Mr. CRANDALL. Well, the bias issue I think we can show you data that will quite clearly demonstrate that the absence of bias, the removal of bias has had an adverse impact on American's share of the airline industry. That is, American's load factor and American's share of passengers boarded overall has declined somewhat since the new rules changed, and that was just as we expected.

Senator KASSEBAUM. Due to the lack of bias in the first screen?

Mr. CRANDALL. Yes, due to the removal of airline specific bias.

Senator KASSEBAUM. Right. I realize that you have said that you would just as soon see the elimination of the secondary bias, but you do use it.

Mr. CRANDALL. We do, and let me, if I might take just a moment and describe to you——

Senator KASSEBAUM. I do not blame you for it, as long as that is there——

Mr. CRANDALL. At the time the rules went into effect back on November 14, we had prepared at that point a secondary bias—the secondary displays. Effectively, in order to use a secondary display, the agent makes a key entry and goes to a secondary display which shows American in a preferential posture.

We considered at that time offering a travel agent the option of locking his agency onto the second screen. We decided not to offer that option back in November, because we thought it would in some respects violate the spirit—we did not think the letter—but the spirit of the rule.

That situation persisted into February, at which point it became clear to us that a couple of our major competitors as vendors were offering the lock-in feature, and that was depriving American of airline bookings that it would otherwise have gotten. We then went into the marketplace.

We did two things simultaneously. We notified the Department of Transportation that we were going to do this, that we were going to offer the lock-in feature. We said then, and I have said again here today, we would be perfectly happy to give up the lock-in feature or the secondary bias, but we think it is a competitive necessity as the world sits this morning.

Senator KASSEBAUM. You have in your testimony indicated that Sabre results in significant economies of scale. If that is true, why can a much smaller system such as Datas II charge so much less than Sabre?

Mr. CRANDALL. Well, I really do not know, Senator. I can offer a guess, and I would guess that the best people to ask are Delta. I suspect that the primary reason for a system like Datas charging less is that Datas is being priced, or more properly, costed incrementally as opposed to fully. In our case, the travel agent portion of Sabre is by far the dominant portion. It drives the system. It is the cause for the bulk of our spending.

Datas at this point, a newly competitive system, is much smaller. I suspect at this point that Delta's internal needs dominate their computer spending and their computer selection and their computer buying, and they may thus be arriving at the costs of the Datas travel agency system by looking only at the incremental costs which they have to add to a preexisting and necessary system there to serve Delta's requirements.

In our case, on the other hand, because of the magnitude of Sabre we have to cost it as if it were a freestanding system, and on that basis of course we have to absorb all the costs and you cannot look at it incrementally. Across the longer term, I think there is no doubt that, as Delta gets deeper into the business, as Datas grows and prospers as we expect it will, unless they prove to be much smarter and better managers than we are, they will find that their costs are higher than they now think they are and their price will rise.

Senator KASSEBAUM. How much competition is there among the systems for airline participation?

Mr. CRANDALL. Among the systems for airline participation?

Senator KASSEBAUM. I assume there is quite a bit of competition for agents' participation?

Mr. CRANDALL. Yes, ma'am. Well, there is. The systems are extraordinarily competitive at the retail level. You heard earlier some remarks regarding what United was trying to do in one particular case to wrest the system away from us. We make the same sort of assaults on their agents. Delta attacks us both, as does Eastern and TWA.

I think that the competition for airline participation is a somewhat different issue. Once an airline makes a decision that it is going to participate in any CRS system, it only makes common sense from the airline's perspective to participate in all of the CRS systems, unless there is one that is much more expensive. For example, if we were to charge $3.50 and United $1.75, I think that somebody might make a different decision. But once you have made a judgment as an airline that you want to reach out into the distribution community, and once you have made a judgment that $1.75 is a reasonable price at which to secure a segment booking, then it only makes sense to participate in all systems. Because when you participate in Sabre, you reach this 10,000 agents, and when you participate in Apollo you reach another 8,000 or 9,000 agents, and since you would like to reach them all, it is thus in your interest to participate in all systems.

Senator KASSEBAUM. Well, possibly. I think a case could be made, I suppose, and I would assume you could make it, that if you participated in Sabre, would there really be a need to participate in Apollo, at an additional cost that would be considerable.

Mr. CRANDALL. No, there is no additional cost, Senator, you see, because all of your costs are really user costs from the systems' perspective. The user pays only when the sale is actually made. So that since the user of a CRS system is trying to sell seats on an airplane, and since that user does not care where the passenger comes from, and since that user has determined that in order to get an additional booking to fill an additional seat, $1.75 for the reservation function is reasonable, it follows from that that it only makes sense to participate in all those places where you can secure that booking for $1.75 or thereabouts. It really does not make sense to cut yourself off from access to that portion of the Nation's travel agents that are served by competitive systems.

Senator KASSEBAUM. You stated that early on before you really got started on your efforts with the Sabre system, that you believed an industry-wide system would be best. Now you feel that that expense and so forth would be way beyond any benefits that would accrue. Is that right?

Mr. CRANDALL. Well, we are really talking about two entirely different points in time and two entirely different sets of circumstances. Let me go back into the mid-1970's.

At that point, there had already been several efforts to create an industry system, and I might say somewhat ironically those efforts, those early efforts failed primarily because of the opposition of government. Government felt that it would be anticompetitive to create a single system, therefore none was created.

In the mid-1970's, the travel agent organizations were anxious to have such a service. We became convinced—when I say "we," my

colleagues and I at American—became convinced that we ought to make one more try. We went out and organized, conjunctively initially, with TWA and United, and subsequently with other carriers joining in, an effort that came to be known as JICRS, the Joint Industry Computerized Reservations System, and we really provided the staffing for that effort. It was run by a man named Max Hopper, who is now a senior vice president for automation at the Bank of America.

In any event, that study went forward and ultimately failed because the airline community, as I said earlier those same folks that were here, decided they did not want to spend the money. Why did we think at that point that a joint system would make sense and today feel otherwise?

At that point in time, Senator, we were looking at some very large expenditures, and we were looking at an extraordinarily high risk. Nobody really knew that travel agents would pay the costs of such a system. Nobody knew that it was technically possible to create a system of that magnitude. We did know that we had to spend a great deal of money up front.

So, quite candidly, we entered that business in the face of a challenge from United, a challenge that we wished at that time we did not confront, and now the years have gone by and we have spent an enormous amount of money. We have created a system. And I think I would have to reflect that my own views, my own earlier views, were probably wrong.

I think that Apollo, our competitor, and Sabre, and for that matter, Datas and the other systems that are operating are individually far better systems than would ever have been created by a group of airlines trying to create a utility. Functionally the systems do things today because of the intense competition between the various systems to be installed at different travel agents.

I think that is one of the gravest issues and gravest risks that you face as you think about this, that if that competition is in any way interrupted, there is not going to be any further evolution of travel agency automation.

Senator KASSEBAUM. Well, I think you make a good point there. I am concerned that with the change that we see just in the industry today largely because of the enormous numbers of flying public that will grow, that we may have different responsibilities as we look to the future, and certainly eliminating competition is not one that we should do. But in some way, realize that—frankly, I think that for most people who are your average fliers, are totally confused by all of the wide assortment of plans that are there before them. I think out of that confusion, anybody who can put forward some sort of structure, whether it is with Sabre or Apollo or the agent who is going to try and narrow the choices, obviously has a great advantage.

It may be that it is an advantage to the consumer. I think too many choices only confuse. But I do believe, for the health of the industry as a whole, that we have to look to some of the changing circumstances that will exist for us in the next few years, and certainly in the next decade.

Mr. CRANDALL. Well, I quite agree, Senator. I do think, however, that there is an enormous amount of misinformation on this sub-

ject. If I may just take 1 minute to at least follow up your point, deregulation of the airline industry has created an enormous range of choices. You have heard the preceding panel. Senator Exon explored briefly with Mr. Bakes the nature of Continental's competition.

Continental is one kind of an airline, and American is a different one, and United is different still, Muse, Republic, there is a growing number of carriers, all of whom are choosing to compete in one way or another on price, on nitch, on service, what have you.

Since the rules came into effect on November 14, 1984, the CRS is not a way in which airlines compete. It is now a way in which airline companies have entered another business. I think that the one great, great piece of misinformation that has been presented to this committee this morning has to do with bias. I think we can absolutely establish that there is no bias in the primary screens today except the bias in favor of the consumer.

Flights are selected for sequence based on the time they leave, the amount of elapsed time that will go by before they arrive at their destination, and whether they are a through-flight or a connection, whether they are on-line or not on-line. That sequence is there for the convenience of the consumer. It does not have an airline bias.

Senator KASSEBAUM. But if indeed it does not have a bias, nor would ever have a bias if we can even perfect it to that extent, then does it not mean that it is an efficient business for American?

Mr. CRANDALL. It is a very efficient business for us today in the financial statements we have given you.

Senator KASSEBAUM. Just because of the service that it does provide.

Mr. CRANDALL. We have built CRS, Senator, into a business. It is a good business. It is not a tremendously high return business, but it is a good business on which we are making a good profit. It is different than the airlines business. It is a business where we can differentiate ourselves from our competitors by providing something that is different, a better service for example than a competitive CRS system.

Senator Exon asked earlier, or I think it was Senator Ford, what would you do, for example, as a travel agent if you want the lowest fare. The answer is not the same in Datas, in Apollo, and in Sabre. In Sabre we have a very powerful program called "bargain finder." You go in, you make a few keystrokes, and the system searches out the lowest fare.

Now why is that? That is because we want to sell Sabre in preference to other systems. We are now in the systems business, and we would like to stay in the systems business. We think we really are entitled to continue to run that business, but it no longer has an impact on the competition between airlines.

Senator KASSEBAUM. Thank you very much, Mr. Crandall.

Mr. CRANDALL. You are quite welcome, Senator.

[The statement follows:]

STATEMENT OF ROBERT L. CRANDALL, CHAIRMAN AND PRESIDENT, AMERICAN AIRLINES, INC.

American is pleased to appear before the Subcommittee today to discuss its SABRE computerized reservations system. SABRE is one of the decade's outstanding technological successes. It is the largest nongovernmental real time computer system in the world, with more than 69,000 terminals and other devices connected through an extensive communications network to its central data base in Tulsa, Oklahoma. At the present time, SABRE handles up to 1,000 messages per second, compared to 25–50 for an airline's normal processing.

SABRE is not only a technological success. After an investment of almost $350 million, it has finally become a system that contributes to the operating profits of American Airlines. The SABRE story is in the best tradition of the American free enterprise system. After long years of effort, significant losses, and substantial risk, we have succeeded in developing an important new service for the travel industry. We are distressed, therefore, to find the ink hardly dry on the new CRS regulations before our airline competitors have returned to Congress in an attempt to strip us of the benefits of our achievement.

Our competitors have complained about the prices established for booking fees under the new CRS rules and the continuation of carrier preference factors in secondary displays. There have been proposals that all CRS vendors should be required to divest themselves of their systems, or, alternatively, that all systems should be consolidated into one massive industry system. Before discussing the reasonableness of our CRS fees and the issue of secondary display bias, I wish to address the benefits that have been created by the vigorous competition which has occurred between vendors of CRS systems and the damage that would be caused by divestiture or by creation of a monolithic industry system.

COMPETITION AMONG AIRLINES HAS CREATED THE CURRENT BENEFITS OF COMPUTERIZED RESERVATIONS SYSTEMS

In our view, it has been competition among the major airlines to develop computerized reservations systems that has made them such outstanding technoloical achievements. Without the benefit of the airlines' expertise in handling reservations and their understanding of the air transportation business, there would be no computerized reservations systems as they exist today. The idea of divestiture, or breaking the linkage between CRS systems and the companies that are most knowledgeable about the functions such systems perform, defies logic. Moreover, the time when a single industry system might have worked has come and gone.

Some background on these issues may be helpful. This is not a new debate. From the early days of airline reservations systems, there have been numerous proposals for consolidated industry systems to extend the benefits of automation to travel agents. These efforts never came to fruition, in large part because of the doubts of government agencies that such joint systems would efficiently provide reservations services over the long run.

COMPETITIVE AUTOMATION SYSTEMS DEVELOPED AFTER SEVERAL ATTEMPTS AT COMMON INDUSTRY SYSTEMS FAILED

In the mid-1960s, the airline industry recognized the desirability of automating travel agent reservation activities. The first effort to develop a common automated reservations system was reflected in a Memorandum of Understanding signed by 21 airlines in 1967. The proposed system, Donnelley Official Airlines Reservations System (DOARS), was very primitive, consisting of little more than a microfiche copy of the OAG, and the project was soon abandoned.

A second effort to develop an industry system was begun two years later when the Civil Aeronautics Board was asked to approve an agreement, sponsored by several carriers, relating to a project called Automated Travel Agency Reservations System (ATARS). Among other things, the agreement provided that ATARS would be the exclusive industry system, providing information and service to travel agents on behalf of all airlines. This triggered opposition from a number of parties, including the Department of Justice, which characterized the exclusivity feature as a per se violation of the antitrust laws. In September 1970, even though the exclusivity provision of the ATARS agreement had been eliminated, the Board instituted the Automated Reservations Systems Investigation (Order 70–9–10) because it was still concerned about the numerous competitive issues raised by a uniform industry system. Before the Board's review could be completed, ATARS supporters, discouraged by the prospect of government opposition, abandoned it.

A third effort to develop an industry system for automating travel agencies was launched in 1974 when American filed an application with the CAB requesting authority for discussions among airlines, computer vendors, travel agents and commercial accounts. The system under consideration—Joint Industry Computerized Reservations System (JICRS)—would have established one central site computer to provide reservations and ticketing services for travel agents on behalf of all carriers. The CAB authorized discussions but pointedly noted that its competitive concerns of 1970 still existed and would have to be addressed before it gave final approval (Order 74-11-37, p. 6). This effort failed in January 1976 when United Air Lines announced its intention to market its own APOLLO reservations system to travel agents. United's announcement left American little choice but to offer its own agency automation system, since other airlines made no effort to sustain the industry effort.

The American Society of Travel Agents (ASTA), however, continued to promote the idea of an industry system. It filed a petition for discussion authority, which was granted by the Board in March 1976 (Order 76-3-36). ASTA proposed a "multi-access" reservations system (MARS), in which it and the carriers would each have a financial interest. Pilot projects were established and tests continued, pursuant to Board authority, until October 1978. At that time, ASTA and the major carriers agreed to set up a nonprofit corporation to "spearhead" the development and operation of an industry multi-access system. The Board approved the agreement in July 1979, but withheld antitrust immunity, noting its concerns about the possible competitive consequences of an industry system (Order 79-7-5, p. 8), and the parties subsequently decided to disband because of fear of antitrust problems and doubts about the need for an industry system in the competitive marketplace that had already developed.

COMPETITION BETWEEN THE MAJOR AIRLINE VENDORS HAS PROVIDED INNOVATIVE AND EFFICIENT COMPUTERIZED RESERVATIONS SERVICES FOR THE TRAVEL INDUSTRY

Although American supported the idea of an industry system because of grave concerns about the costs and risks of launching an independent venture, we very much doubt that such a system would have provided the CRS benefits that the industry enjoys today. Vendors have competed vigorously in the areas of system functionality, pricing and services to travel agents. There is no doubt that, without competition, fewer agents would be automated; that fewer functions would be provided by CRS systems; and that the cost efficiencies of the systems would be less than they are today.

Competition among CRS vendors has resulted in far more sales to travel agencies than initially contemplated. When we decided to offer SABRE to travel agencies in January 1976, we expected that only 200-300 of the largest travel agencies would be able to afford automation. In fact, SABRE is now installed in almost 10,000 locations. In 1976, SABRE offered travel agents essentially the same services we were providing for our own reservation offices but did include a more comprehensive schedule display. Now, SABRE is a total access system, through which the travel agent can interface not only with the SABRE data base but also directly with the data bases of other airlines and travel industry vendors. Because of competition between CRS vendors, travel agents can issue boarding passes for flights on many airlines; ticket and price the most complex itineraries; send telex messages abroad; book hotels, car rentals, and Broadway shows; and even order office supplies.

It is only because computerized reservations systems have been developed and sold by airlines that these efficiencies have been achieved. In economic terms, this is called economies of scope. This was explained by the Federal Trade Commission in its comments to the CAB in the CRS rulemaking:

"Economies of scope refer to the instances where one firm can produce two or more products more cheaply than if each product were produced by a separate firm. In other words, it may be more efficient for one firm to engage in air transportation and CRS services than it would be for two separate firms to provide these services. In fact, this may be why CRSs were initially developed by airlines: airlines needed computer services for their own use and, having developed those systems, the larger airlines began to provide services to smaller airlines and were in a position to provide CRSs to travel agents at lower costs than a firm that had no need to develop similar software." (FTC Comments, CAB Docket 41686, November 17, 1983, p. 28.)

The concept of economies of scope leads us to view computerized reservations systems as an ancillary business in which we are particularly well qualified to participate. Because of our expertise in the airline business, we have superior knowledge of the information and service needs of both travel agents and airlines. Thus, we

can provide a superior CRS service, just as we provide other ancillary services such as inflight catering or crew training. In recent months, we have used our computer and reservations expertise to go into another business—telemarketing—in which we use the off-peak capacity of our reservations offices to handle incoming WATS 800 calls for other companies. If Congress precludes the largest carriers from entering ancillary businesses, it will forbid the companies with the greatest competence from providing these services to the general public.

It is because of competition between the airlines as CRS vendors that automation has advanced so rapidly over the last decade. Before breaking the linkage between airlines and their automation systems as the behest of our less innovative airline competitors, Congress should seriously consider the adverse consequences such an act will cause for other airlines, travel agents, and the traveling public.

DIVESTITURE WOULD BE BAD PUBLIC POLICY

Requiring airlines to divest themselves of CRS systems will have several adverse consequences.

INNOVATION WOULD BE REDUCED

Competition between CRS vendors has resulted in a constant process of product improvement that has benefited the travel agent community. While I have mentioned some above, the list of such enhancements is too long to describe in detail. I will, however, give an example of one recent enhancement of which we are very proud—SABRE's "Bargain Finder" feature, which is only the latest of many improvements in the ability of the travel agent to book a client at the lowest available fare.

Initially, CRS systems displayed fares separately for each carrier and ranked them from the highest to the lowest—a display which was quite logical from the airline's point of view. Because travel agents desired immediate access to the lowest fares, competition led vendors to integrate fare displays and change the order of the display to list the lowest fares first. Competition then led to the development of enhancements by all systems under which the travel agent could automatically price an itinerary at the lowest fare applicable to the booked class of service.

Bargain Finder, which was introduced only a few months ago after two years of developmental effort, goes one step further. For a specific itinerary, it automatically finds the lowest fare at which seats are available. For example, if a passenger is booked in coach (Y) class, Bargain Finder will, at the request of the agent, automatically search for the lowest discount fare for the flight and date originally requested and rebook the client in the lowest available fare class. Prior to the introduction of Bargain Finder, the fare and availability inquiries had to be accomplished by separate entries. Since the process of searching back and forth between screens normally requires at least three to four minutes, Bargain Finder saves the agent time while assuring the client the lowest possible fare.

The development of Bargain Finder demonstrates several important lessons:

1. The synergy between the airline and the CRS business resulted in a new service to meet the needs of the marketplace. A nonairline owner would not have the expertise in the airline business to recognize as quickly as has American the desirability of such a feature to travel agents and customers.

2. It is competition between airlines providing CRS services that has led to constant development of functionality. We do not doubt that our competitors have already started to work on enhancements to match Bargain Finder.

There are two excellent real world examples of the benefits of airline competition in CRS readily available. In the U.K., there is one industry system, Travicom, which is owned in large part by the two major airlines, British Airways and British Caledonian. Travicom was developed some years ago, in 1976–77, but it is the only CRS available today in the United Kingdom. It has limited functionality and fails to provide U.K. agents with access to trains, tours and theater tickets, which have long been available in the United States. Only one car rental company is offered (SABRE allows booking on 21 car rental firms). As a consequence, it was judged inadequate when considered as an industry system in the ASTA/MARS study discussed above. Another example is in Canada, where the Reservec system of Air Canada has been for many years the only CRS available. It remains little more than Air Canada's internal system because Air Canada has not been pressured by competition to improve it. In recent months, American has begun to expand the SABRE system into Canada. Quite frankly, we find the job of selling Canadian travel agents on SABRE's superiority an easy one, even though SABRE is priced considerably higher than Reservec. Similar statements can be made about the very limited computerized

reservations systems in countries such as Germany and Japan. In any consideration of this issue, I suggest that you analyze the vibrant U.S. CRS industry in comparison with the much more limited CRS facilities available in other major industrialized nations.

PRICES WOULD INCREASE

Another result of divestiture would be that prices would increase. It is ironic that the carriers that are complaining about the current level of CRS booking fees propose a remedy that can only result in higher prices. However, they have already demonstrated over the past two years that, while they are uncomfortable with a CRS operated by a competitor, their proposed cures usually create more problems for them. I believe they have learned that they benefited more from bias than they suffered and, given a chance, would turn back the clock to before November 14, 1984. If they now persuade Congress to force divestiture, they will soon yearn for the good old days of nondiscriminatory booking fees.

Prices would increase because any purchaser of SABRE will have to earn an adequate return on its investment. We have developed a sophisticated, high/technology network after an investment of almost $350 million. After many years of losses, it is now a profitable operation. Even if we assume that a willing seller and a willing buyer negotiated a purchase of SABRE, the new purchaser would be required to capitalize—and then recover—the present value of the system's future profitability. Such a purchaser would have every incentive to increase transaction charges to both airlines and travel agents in order to recapture its investment quickly. Thus, divestiture would do nothing to respond to the complaint of the critics about current CRS price levels. Of course, divestiture might result in the sale of SABRE at a lower price than American could receive in a normal transaction because the buyer would take advantage of the forced nature of the sale. Congress would, in effect, have confiscated the difference between the resulting price and the free market value of American's investment. However, a buyer at a forced sale would still have every incentive to raise prices to maximize its profits.

BIAS WOULD RETURN

Divestiture would also restore the completely unregulated environment that existed prior to the adoption of the CRS rules. Those rules only apply to CRS systems owned by airlines. If the system were sold to a nonairline, the new CRS owner would have every economic reason to reinstate bias as a means of raising charges to its customer airlines. It could, and certainly would, sell a favored display position for a higher price.

A SINGLE INDUSTRY SYSTEM WOULD BE BAD PUBLIC POLICY

There have also been suggestions that CRS vendors not only be required to divest but that they somehow be forced to combine their systems into the industry entity rejected by the government years ago. A variation on this theme has been the suggestion that each owner be required to sell partial ownership of its system to consortiums of other airlines. Both these suggestions would impose a major structural defect on the CRS industry—management by committee.

Any organization responsible to a management of numerous different airlines will be faced with the absolutely insuperable problem of the conflicting interests of its owners. In that environment, management would be unable to develop new enhancements because of the differing levels of computer sophistication of its owners. Less sophisticated airlines would seek to restrict the development of any system function which would give more sophisticated and more highly computerized carriers a competitive advantage. For example, a carrier with only one class of service and one price would doubtless oppose the development of the Bargain Finder enhancement, which allows agents to take advantage of the highly differentiated price structure of carriers with multiple inventory classes. Carriers that do not have the technology to offer automated boarding passes to their own passengers would hardly encourage an industry enhancement that would allow its competitors to offer such boarding passes through travel agencies.

There is also a very real practical problem with the idea of a single industry system—today, we doubt there is any computer big enough to handle it. SABRE, as the largest nongovernmental real time system, has for many years used the largest computers available in a commercial environment. Moreover, to handle our volume, we have been forced to develop special operating programs to link together several of IBM's largest computers. We have been among the very first to order IBM's new

generation of 3090 mainframes, which are larger and faster than anything currently operating. We are certain that no technology currently exists that would allow SABRE to be combined with APOLLO, PARS, SODA and DATAS II to operate as a single system. There are additional difficulties in creating an industry system:

1. If the system failed, the entire industry would be severely damaged.

2. Migration of the entire industry's reservation records to a single data base would cause enormous transitional problems. Whether the chaos would be more or less than that created by the breakup of AT&T, I cannot say—but it would be massive!

SABRE PRICES ARE REASONABLE

Consideration of these draconian alternatives seems especially ironic in view of the fact that SABRE prices are quite reasonable. When American established its basic SABRE booking fee of $1.75 last Fall, we realized that some airlines which had been early cohosts in the SABRE system would have to pay higher booking fees, but also knew that other carriers, which had joined the system later, would enjoy lower prices. We were also well aware that neither group of carriers could possibly have any comprehension of the complexity and costs of developing and operating the SABRE network. Our expectations proved correct. We have been subject to criticism from airlines that quite simply do not know what they are talking about. Moreover, these carriers are expressing views which are, in many cases, philosophically at odds with the whole ideal of deregulation.

These carriers expect that the large airlines will continue, as they did prior to deregulation, to provide an industry infrastructure for the benefit of smaller carriers. During the years of airline regulation, the pricing structure established by the CAB actually mandated such cross-subsidization.

When we offered SABRE to travel agents, it amounted to an extension of our airline ticket distribution system. Its purpose was to help us sell seats on American Airlines, and, as a necessary concomitant, it automatically helped other carriers sell seats as well. However, the CAB bias rules had a profound influence on the CRS industry. In accordance with the rules, we now operate SABRE as an independent profit center, and we expect it to earn a reasonable profit independent of our airline activities—a profit comparable to those earned by other computer service companies.

Our opponents, however, are mired in the concepts of the old pre-deregulation airline industry. Since the CAB established that a 12% rate of return would be reasonable for the regulated airline industry in the early 1970s, the critics seem to believe that level of profit is appropriate for data processing service businesses operated by airline companies. Nothing could be further from the truth. The data services business requires enormous high risk investments. If an airline fails on a route, the carrier can simply move its airplane to another route without losing its investment. However, if a data service offering becomes obsolete, the investment which underlies it is worthless.

Because of the criticism which has arisen in the last several months, American has undertaken a detailed cost study of its CRS business in order to identify as precisely as possible the actual investment we have made in SABRE and to determine the costs we incurred in its operation. We asked National Economic Research Associates (NERA) to assist us in identifying correct costing principles and to determine the return we are earning, or can expect to earn, on our investment. We established an internal task force that examined every investment we have made in our data processing activities and traced every expense item applicable to the travel agent SABRE system. We asked the accounting firm of Arthur Young & Company to review the procedures adopted by both NERA and the task force and to confirm that our study accurately reflects the results of the SABRE enterprise.

The results of these efforts are shown in the attachments to this testimony.[1] We have confirmed that our current price structure will provide us an entirely reasonable profit on our investment. Professor Hass' study attached hereto concludes that our internal rate of return on this project, if operated in future years on the basis assumed, will be approximately 18.8% for the 15 years 1976–1990, a rate which is quite modest when measured against industries of comparable risk.

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[1] The attachments referred to are in the committee files.

COMPUTERIZED RESERVATIONS SERVICE HAS BEEN AND CONTINUE TO BE A HIGH RISK BUSINESS

Any return on investment must be considered in light of the risks to which the investment is subject. Travel agent SABRE faced a highly uncertain future in 1976 when it started and continues to face great uncertainty today. In 1976, most carriers believed that airline cost savings would be limited and that the travel agent market would be small. Because of the intense competition in providing CRS services, we have developed a product which those same carriers now allege is essential to reservations systems are clearly not essential. Those not in the CRS business have none to blame but themselves for the results of their inactivity.

Even today, there is great uncertainty about the future of CRS. For one thing, the agency system to which CRS is marketed will certainly change over time. As commission costs escalate, airlines may search for alternative means of distributing their product. In addition, new technologies may make dedicated communications networks tied to a central data base obsolete. Only a half dozen years ago, the Federal Trade Commission accused the Official Airline Guide of having a monopoly in the distribution of schedule information [2] and thus of being "essential" for commuter carriers. Now computerized reservations systems are accused of having the same monopoly. Who knows how travel information will be distributed a half dozen years from now?

AMERICAN'S INVESTMENT IN SABRE HAS BEEN SUBSTANTIAL

The critics of SABRE pricing simply do not understand the enormity of the effort that has gone into the development and operation of SABRE. In addition to the intelligence and imagination required to develop SABRE, American has expended huge sums of money. It incurred heavy startup losses at a time when it could ill afford to do so. During those years, other carriers made different investment decisions—some investing in fuel efficient aircraft; some in ground facilities; some in the stock of other airlines; and some in building cash equity. American however, appreciated the importance of computerization and had the foresight and determination to continue its investment in CRS services.

In recent years, U.S. companies have been criticized for not making investment decisions for the long haul. Critics have claimed that Japanese companies have the foresight to invest in long-term projects and the dedication to follow through on them, while American managers focus only on short-term projects.

SABRE is a perfect example of an American long-term perspective. After years of losses, it has turned the corner into a profitable future. American's long-term commitment to SABRE should be awarded, and the profits earned after years of uncertainty and losses should be regarded as its just reward. Certainly, it should not be criticized for besting its competitors.

In addition to our past investment, we will be required to make substantial future investments in order to maintain SABRE as the industry's leading system. Over the next 18 months, we expect to make new capital commitments of approximately $100 million. Because SABRE is now used by so many carriers and travel agencies, any accident that would cause it to cease operating, even for a few days, would have a substantial impact upon the entire industry. To protect the system from any natural disaster we are expanding our Tulsa computer facility by building secure space totally underground. We have also ordered, and will soon take delivery of, the next generation of mainframe computers, which cost well over $15 million each, but which we will need in order to keep up with expected growth.

Finally, we have committed to a revolutionary new communications network which will operate on a nationwide basis. Our initial supplier has gone bankrupt, imposing additional costs on us, but another company has taken up the project. In order to justify these investments—and their inherent risks—SABRE must be profitable!

SABRE BOOKING FEES ARE REASONABLE

To comply with the CRS rules, we adopted a nondiscriminatory price structure, effective November 14, 1984, with a basic booking fee of $1.75 per transaction. Our studies have demonstrated that our prices are quite reasonable and will, over the 15-year period 1976–1990, provide American with only an 18.8 percent internal rate of return.

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[2] *Official Airline Guide, Inc.* v. *FTC*, 630 F.2d Cir. 1980), cert. denied 450 U.S. 917 (1981).

The results of the current study show that our total investment in SABRE has been even greater than we had believed. Indeed, the SABRE profit and loss we presented at the previous Congressional hearings on computerized reservations systems in June 1983 substantially understated our costs for several reasons:

1. In consultation with NERA, we have refined our costing principles. Our prior study failed to recognize that the allocation of capacity related central site costs to the travel agent system must be done on a peak load basis because it is peak demand that drives our investment decisions. Since travel agent SABRE now accounts for 83% of peak period transactions, travel agent SABRE must bear an appropriate portion of peak period costs.

2. Our earlier analysis allocated software development costs to travel agent SABRE on the basis of forecast utilization. The current study benefits from an examination of actual data. Costs have been divided between our internal and travel agent systems on the basis of the actual usage of a particular enhancement.

3. The previous study accounted for some major SABRE cost elements, as well as an allocation of central site expenses, but ignored the costs of ancillary services, such as reports, generated by our off-line commercial computer network. Our comprehensive study assigns an appropriate portion of those costs to the travel agency system.

4. The current cost study directly assigns a higher proportion of our total costs than was previously possible. Thus, 70.2 percent of the total costs shown in the attachment has been directly assigned by cost center accounting code to either the travel agent or the internal system.

CONGRESS SHOULD URGE DOT TO COMPLETE THE JOB OF ELIMINATING BIAS

When the CAB's CRS regulations became effective in November, we thought that they would effectively eliminate screen display bias, since they required that the primary CRS display be totally unbiased. Because some vendors, such as Eastern and American, offered multi-access systems, through which the travel agent had the ability to actually examine the internal data of participating carriers, the rules also allowed for bias in secondary screens. Unfortunately, one vendor developed a secondary screen with a lock-in feature which allows travel agency management to force reservations agents to use that screen as the primary display. The lock-in makes it easier for travel agent managers to earn override commissions. Another vendor matched this practice. This has resulted in a continuing uproar in the industry and a competitive disadvantage for American.

We should emphasize that it is not the secondary screen itself, but the lock-in feature, which is objectionable. However, if it is necessary to eliminate secondary screens entirely in order to resolve this problem, American is willing to do so. Of course, we think all users would agree that multi-access features—which can be offered by any vendor and which provide added functionality to the travel agent—should be left unmolested.

The secondary screen lock-in has been extensively used by travel agents, and, because of the competitive implications, American has been forced to respond. Between November 14 and late February, American offered only a truly secondary display, which travel agents could reach only by using additional keystrokes to gain access. They were not automatically locked into it. The display was so secondary that, in fact, it was hardly ever used.

By late February, we began to feel the negative impact of our noncompetitive behavior and moved to fix the problem. We now offer a lock-in feature similar to that of our competitors, but we are quite willing to eliminate it if all airlines do so. We believe the lock-in procedure violates at least the spirit of the CRS rule, if not its letter.

It is important, however, to aim the remedy at the problem. Multi-access or direct access displays, which provide useful added functionality to the travel agent, should not be changed. For example, American's total access package includes the following displays:

"Direct Access". Under this procedure, the agent can view another airline's internal screendisplay and book the actual reservation for storage in SABRE.

"Multi-access". While using multi-access, the agent actually uses the other airline's reservation system. He sees the other carrier's internal availability display and creates the reservation record in the internal system of the other carrier. SABRE merely retains a record of where the reservation is located and creates a duplicate record in SABRE.

These displays clearly offer important functional advantages for travel agents and should be preserved.

CONCLUSION

American believes that the CRS rule should be allowed to work as originally intended. Congress should ensure that truly unbiased primary displays are offered to travel agents. However, it should not make structural changes in the CRS industry. The AT&T divestiture is a sufficient example of the untoward consequences of meddling with an industry that works well. We should not risk similar consequences in computerized reservations systems.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. Mr. Crandall, in your testimony on booking fees you stated that, given a chance, you thought those airlines not owning a CRS would like to turn back the clock to before November 14, 1984. Can you please expand upon the statement?

Answer. We suspect that many carriers which urged that display preferences be eliminated have found the CAB's rule to be a mixed blessing. For example, Northwest enjoyed a schedule display preference in SABRE over its major competitor, United. In APOLLO, the reverse was true. While the CAB rule eliminated Northwest's display disadvantage in APOLLO, it also eliminated Northwest's preference in SABRE. Since the elimination of all display preferences necessarily led to an increase in overall booking fees, carriers which enjoyed low booking fees negotiated in the early days of CRS development, and which benefited from a number of display preferences, may well now conclude that on balance they were better off before the rule than after.

Question. What innovations has American developed on SABRE that are not now available to all other carriers?

Answer. American is not aware of any innovations or enhancements offered to SABREsubscribers that are not available to other carriers. For example, American's Total Access system is available to all participating airlines. SABRE's boarding pass capability, pursuant to which passengers can receive their boarding passes at travel agencies, is now offered for American, Frontier, United and Western. Other carriers have contracted for the boarding pass enhancement and will be brought online as soon as necessary programming work is completed.

In this regard, the paper submitted by the eleven carriers contains a major falsehood. It states that American has developed a special enhancement, useable only by its "frequent flyer" passengers, which allows travel agents to automatically book such passengers at the lowest fare (page 24). American has no such enhancement. We assume that the statement refers to American's "Bargain Finder" enhancement discussed in Mr. Crandall's testimony. This feature is available for travel agents to use for all passengers on all carriers. Bargain Finder automatically searches all classes of service of the carrier in the requested intinerary and books the passenger in the lowest available inventory class at the lowest available fare.

Question. What kind of information or data is routinely provided other airlines to allow the confirmation of the number of SABRE bookings? Can the participating airlines audit the charges or determine how the number of transactions affecting them are counted?

Answer. American provides each participating carrier an invoice which contains detailed records of the number of bookings on that carrier by each SABRE subscriber during the billing period. These invoices are based on booking counts created by the computer. Every day a tape is created from SABRE consisting of all segments booked for travel on the preceding day. This tape is then processed offline in American's commercial system in a report generating program which processes the raw data into files by carrier from which an invoice is created at the end of each month.

Complaints of other carriers about failure to replicate the number of bookings billed to them by American are based upon their own inadequacies in processing passengers, rather than upon deficiencies in American's information. The bookings billed by American include three categories of reservations:

passengers who are booked through SABRE and travel;

passengers who are booked through SABRE but fail to use their reservations (no-shows);

passengers for whom the travel agent called the airline to make the reservation, but for whom the agent then created a passenger name record in SABRE (GK or HK passengers).

It is with respect to these last two categories of passengers that other airlines have difficulties in reconciling their SABRE bookings.

No-Show Passengers.—American's booking records cannot distinguish between passengers who actually travel on another airline and passengers who do not use a reservation, because we have no way of knowing whether a passenger actually travelled. Of course, the information is irrelevant since American incurs the same cost and does the same work in handling a reservation transaction for a passenger who does not travel as for one who does.

GK or HK Passengers.—Some travel agents may book a passenger via telephone directly with another carrier but recreate the reservation record in SABRE with a GK or HK code. SABRE provides valuable services for the other carrier in handling these bookings even though the travel agent may have called the carrier directly. The agent learns of the other airline's schedule through SABRE's availability displays, and the agent's ability to enter the passenger name record in SABRE enables it to issue tickets and provide the passenger with invoices and itineraries that include the other carrier's flights.

Other carriers could confirm their SABRE bills if their reservations systems and passenger handling methods were more sophisticated. They could add the number of passengers actually carried to the total number of no-shows, but to determine the actual number of no-shows, they would have to do post-departure reconciliations of their flights—something American does on its flights but which most other carriers choose not to do.

Question. Are travel agents paying American fees which cover fully the out-of-pocket maintenance and communications costs, plus full recovery of the hardware costs at each location?

Answer. The question suggests a misunderstanding of joint costing methods. SABRE is a product which produces joint benefits for travel agents, subscribers and participating airlines. As such, its cost cannot be directly allocated to either of the beneficiaries, and it is, therefore, inappropriate to relate subscriber revenue to specific categories of costs.

The financial statements presented by American demonstrate that subscriber revenues do cover the out-of-pocket expense categories mentioned in the question.

Question. How does American account for the costs incurred during the buy-out of a competitor's CRS system at a travel agency?

Answer. Such costs would be accounted for as a marketing automation sales expense in the current period.

Question. Do you think encouraging travel agent booking off the biased secondary screen violates the intent of the CAB rules?

Answer. Yes.

Question. In his prepared statement, Mr. Ferris from United Air Lines, states that the fact that American implemented a change in SABRE allowing agents to lock-in on a biased secondary screen *proves* that it is "fulfilling agents' demands." Do you agree, and is this why American made this change in its CRS system?

Answer. When the CAB deregulated travel agent commissions, it created incentives for agents to favor the particular carriers which pay them the largest commissions. Since many agents desire to earn override commissions, they undoubtedly favor the availability of biased schedule displays. However, the CAB's regulation adopted a government policy which essentially ignored the marketplace desires of agents and determined that CRS vendors should not "fulfill agents' demands" for bias.

Question. It has been reported that American uses SABRE for various other in-house chores. For example, everything from making flight plans to gauging fuel consumption. Is this true? If so, how are costs accounted for during these operations?

Answer. The SABRE system that handles travel agents, passenger reservations, and passenger processing is referred to within the company as the Passenger Service System (PSS). The Flight Department has a separate real time computer system, also called SABRE, which performs numerous functions with respect to the actual operation of American's aircraft. These functions include flight planning (including calculation of the most efficient route for fuel consumption), load planning, determination of takeoff power requirements, and crew pairing and tracking.

American also has a large commercial data processing system which performs numerous normal commercial functions such as payroll, financial analyses, and traffic reports. It also prepares bills sent to other carriers for SABRE booking fees. The costs of the flight system were totally excluded from the analysis submitted to Congress. The costs of the commercial system were also excluded except for small amounts applicable to tasks performed by the commercial system using data collected by travel agent SABRE or ancillary to the activities of the travel agent system.

Question. Is it possible for American to track the number of bookings made off of SABRE's secondary screen? If so, can you tell us what that percentage is today?

Answer. American does not have the capability to track the bookings made off the secondary display. For several weeks after the implementation of the rules, it did track the number of times the secondary display was accessed by subscribers. The number was so small that the monitoring was discontinued.

Question. Your competitors contend you have strong incentives to price the booking fees charged to them as high as possible. One of the ways to judge this is to look at what booking fees, if any, you charge companies using your system that are not your competitors. If your booking fees for hotels and car rental agencies are significantly less than you charge your airline competitors, you may have some serious explaining to do. What do you charge nonairlines for making bookings, and, if it is less, how do you explain the difference?

Answer. American agrees that its booking fees to other travel suppliers which distribute their products through SABRE are a relevant benchmark in considering its booking fees to airlines. Based upon such a comparison, booking fees to airlines are a bargain.

Hotels.—Most hotel chains pay American booking fees of $2.70–3.00 per booking. One chain, which was an early participant in SABRE, pays a fee of $2.00, but even this fee is higher than the fees charged other airlines.

Cars.—Twenty-one car rental companies are participants in SABRE. Booking fees range from $2.69 to $3.25 per booking.

Other Suppliers.—SABRE allows bookings on various tour packages, and American receives booking fees in the range of $10.00 for such bookings. SABRE also offers other services, such as telexes and purchase of office forms, for which it charges a commission. Commissions range from 6% to 14% of total revenue for these services.

Question. Once you have a travel agency signed up on SABRE, don't you really have the agent over a barrel? After all, it is expensive to change systems, and dual systems don't much help an agent.

Answer. Unless a CRS vendor allows service to deteriorate, it is unlikely that large number of agents will switch from one CRS to another. So long as customer satisfaction is high—as our recent survey suggests is true among SABRE subscribers—this is as one would expect. However, the competitive battle between CRS vendors has resulted in numerous switches. In the past 14 months, American has lost 175 agencies to other vendors, but has in turn persuaded 194 agencies to convert from other systems to SABRE. While such conversions may create transitional problems, they are not overly expensive because vendors have been known to offer to absorb the transitional expense involved. If an agent becomes dissatisfied with its CRS system, it is not "over a barrel"—it has alternative vendors which will assist it in converting to their systems.

Question. Doesn't this computer system give you all sorts of information about bookings on other airlines that provides an unfair advantage to you in competing with them?

Answer. American has repeatedly said that the question of the use of the sales data provided by automation systems is one of the great "non-issues" of this entire dispute. SABRE booking information is useful in determining relative shares of traffic, but sales data is not a measure of actual revenue dollars, and it does not accurately represent traffic volumes because it includes no-shows. It also reflects only flight segment bookings and does not show the true origin and destination of passengers.

American's primary source of traffic information is its Passenger Revenue Accounting System (PRAS), which is an entirely separate reporting system based upon a 100 percent analysis of all ticket coupons lifted by American. This gives American accurate information about actual passengers and revenue booked on American by individual agents. It is on the basis of these reports, and not on the basis of SABRE booking data, that American pays override commissions. These reports could be duplicated by other airlines if they choose to install the same type of coupon-based revenue accounting system used by American. Most carriers, however, use statistical sampling systems to determine revenues and thus lack the detailed information about passengers that American's PRAS system provides.

American's belief that the use of booking data has not been a legitimate issue has been vindicated by the lack of interest in purchasing the SABRE booking data made available by American pursuant to the new CRS rules. American has offered such information at a fee of $1.00 per subscriber per month, which is certainly not an unreasonable price. However, only three or four carriers have shown any interest in ordering the information that is allegedly so vital to the entire industry; no carrier has entered an actual order as of April 5, 1985.

Senator KASSEBAUM. The next witness will be Mr. Ferris, chairman of United Airlines, who I believe has to leave early and would like to testify now.

STATEMENT OF RICHARD J. FERRIS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, UNITED AIRLINES, CHICAGO, IL

Mr. FERRIS. Good afternoon, Senator.

Senator KASSEBAUM. Welcome.

Mr. FERRIS. Thank you. I have submitted a full statement, which I am asking to be made part of the record, and rather than read a statement and having heard what has gone before so far, I would prefer with your permission to rebut some things that were stated here this morning, to clarify some issues, and then answer any questions that you might have.

Senator KASSEBAUM. Thank you very much.

Mr. FERRIS. First of all, on display. I would like to echo the comments of Mr. Crandall in that the basic display on United Airlines today is based on an algorithm. That algorithm was dictated by what the passenger wants. That basic display is what we refer to as an unbiased display. It has been dictated to us by the DOT. I take great exception to the statement of an earlier witness that it perpetrates fraud on the American public. United Airlines does not perpetrate fraud.

The display as it is set today is first for a passenger who wants to go on single-plane service. It does not matter what carrier it is, single-carrier service, A to B, single plane. The next order criterion is a passenger that wishes to move on the same carrier, or on the same plane but with a stop. The next is connecting service on the same carrier so you do not have to go from terminal A to terminal B to terminal C, which would be quite disruptive of your travels. And the final selection point is those connecting flights on carriers that connect. That way, that is the basis upon which it is done.

It is done totally at random. If there is a tie, the tie is settled by random access. It is a totally unbiased system, as unbiased as we know humanly possible how to make it. Now if somebody else has a better way to unbias it, we sure would like to know how to do it.

Second, we do have a second display. It is called Apollo-Plus. The Apollo-Plus was requested by many of our marketing partners. We have elected to distribute our product through travel agents, not through some other means, even to the detriment of our own ticket offices, our own city ticket offices, and our airports. We have elected the travel agent as our distribution method.

Therefore, the travel agents have requested the ability for the owner of the travel agent to lock in the display. We produce a biased display, yes. It is biased to United Airlines. But now, because of demands of the travel agent, we are providing direct access. They can lock in TWA's HARs display through United Airlines' Apollo. And very shortly, we will have an alignment with Delta that they can lock in the Delta display. And any other carrier that wishes to have a direct link with us will be able to do the very same thing. So the travel agent could say, I want to look at the United display, or I want to look at the TWA display, or the

Republic display, or anyone's display who wishes to do it and make the investment to do so.

Finally, there has been much discussion about the power of the Apollo system. I think an example oftentimes used is Denver, CO, where United has a strong product presence along with Frontier and along with Continental. In Denver, we account for approximately 72 percent of all the travel agent outlets who are automated, are automated with Apollo, 72 percent. But an interesting figure is that only 5 percent, only 5 percent of United Airlines traffic out of Denver is booked through Apollo. Only 5 percent.

So we believe very strongly that we are talking about a national marketplace, not a geographic marketplace.

And finally, on the subject of pricing, I wish we were making the returns that have been attributed to us by the many witnesses that have gone before. At the present time, our booking fees, as I heard you ask earlier, are slightly in excess of about $1.30, $1.35. They are slightly in excess of that. We have submitted in our testimony a history of what our P&L is by accepting accounting principles. We will hold them up to the light anywhere.

It turns out that our return right now today is running about 5 percent today. Where it is going to lead out into the future, I hesitate to say because I do not know what the capital requirements are that are going to make us competitive with Mr. Crandall in the future.

It is an interesting point Mr. Crandall made that you can press a button in Sabre and get the absolute lowest fare in the Nation out of 7 million fares. I think that is remarkable. It is so remarkable, and we want to stay competitive, that United will have the same product this July.

Thank you, Madam Chairman.

Senator KASSEBAUM. Thank you, Mr. Ferris.

Let me go back. You say 5 percent of the bookings, your bookings——

Mr. FERRIS. That is correct.

Senator KASSEBAUM [continuing]. In Denver were on Apollo.

Mr. FERRIS. That is correct.

Senator KASSEBAUM. So how were they made? Just through direct contact?

Mr. FERRIS. They are made all over the country. The traffic—Denver works as a hub for United Airlines. For example, let us say that 40 percent of the traffic in Denver is originating traffic, 60 percent of it is connecting. So it is a connecting point. The tickets are written all over the United States. The traffic that originates in Denver, let us just for the heck of it say it is 40 percent, and we are saying 5 percent of that traffic was originated in an Apollo booking in Denver.

Senator KASSEBAUM. Well, that is what I understand, but the traffic that originated in Denver, which is your hub, major hub, and not through Apollo, I assume came through direct——

Mr. FERRIS. It could come many ways. The Sabre system, the TWA system, the Datas II system, the Delta system.

Senator KASSEBAUM. But all on other systems?

Mr. FERRIS. Yes, ma'am.

Senator KASSEBAUM. Why necessarily would that be? It seems to me that would be the obvious place where booking would be through——

Mr. FERRIS. Again, it is a connecting point. I do not have the exact percentage figure of the originating traffic. I have the percentage figure of the total emplaned traffic at Denver. I can get that for you and have it supplied for the record.

Senator KASSEBAUM. Do you have any figures that would show your booking percentages since the CAB rule went into effect in the fall?

Mr. FERRIS. No, ma'am, I would not, but we could resurrect those and provide them to you.

Senator KASSEBAUM. Do you feel that Apollo-Plus has been an advantage to you?

Mr. FERRIS. Apollo-Plus is an advantage to us, Senator, no question about it. It was promulgated by the CAB in its rules. They told us what we could and could not do, and we have followed those rules implicitly.

Senator KASSEBAUM. Do you give agents any incentive to use Apollo-Plus?

Mr. FERRIS. That is a very interesting point, and I am glad you brought it up.

We do provide an incentive to agents to book on United, just as Republic does, Muse Air, or anyone does to book on a carrier. The computerized reservation system, let us take Denver again for an example, and I think Mr. May hit it right on the head. The computerized reservation system in Denver has nothing to do with whether an agent wants to put the business on it. It is product presence. It is not distribution presence.

If I have product presence and we have let us say 40 percent of the seats out in the market, they are going to want to do business with us and I can afford to cause them to book more. So if you really want to address that problem, then we had better go back and say United can only have 10 percent of the marketplace in Denver or 5 percent or 15 percent.

In other words, if I go into Dallas where Mr. Crandall happens to have a high market share in product presence, I have a very difficult time competing. If we happen to go into Atlanta, I have a very difficult time competing. If I happen to go to Minneapolis-St. Paul, a difficult time.

So the ability to attract market is due to product presence. Distribution is a follow-on to the product presence which must come before. Now once you have product presence, then distribution presence certainly is helpful in distributing your product. But to give it an advantage, I would have a hard time quantifying that.

We certainly will look in those figures for you vis-a-vis pre the DOT rules and after the DOT rules, even though only 4 months has gone by.

Senator KASSEBAUM. Well, Mr. Crandall has said he would have no problem with eliminating the second screen or secondary bias. Would that be something that you feel you could eliminate?

Mr. FERRIS. If we were ordered to do so, we could eliminate it. But we would not do so gratuitously.

Senator KASSEBAUM. So you would, I assume—and again I think it is a point that is important to remember, that this sort of effort through the CRS system is a business in and of itself, that we should not confuse it with just the operation of the airlines and whether it is I think a question of regulation or deregulation. But I do think a problem does exist, not through necessarily any fault of yourself or of the Sabre system, but I think that given that, as I mentioned, we should look to perhaps some other alternatives that exist for us in the future, whether it is in some way making sure that say in a primary picture there is absolutely no bias, whether the use of those systems is strictly something that you have as a secondary part of your operation that is part of a business, and that it in no way would influence necessarily the strength or weakness of your airline as far as customers it serves. Would that be something that is correct to say, or is it something that you think is an integral part of your system as an airline?

Mr. FERRIS. The system is, you are in the business of distribution and information. I would agree with Mr. Crandall that it is a service that this industry could not exist without, period. It would sink of its own weight today. You heard the figure of 7 million fares. It just stops. Without CRS, it stops. We could not live without it from the standpoint of selling to the consumer who needs to get through this plethora of barriers and find the lowest option or find what it is they are searching for.

Could you physically separate it out and make it stand alone, I there would disagree with Mr. Crandall only in the sense it would be extremely difficult. It is an integral part of the Apollo system that we operate our airline with, our whole marketing system. You would have to create a duplicate hardware base, a duplicate everything. It would be a very, in my opinion, inefficient thing to do, but could you do it? Yes, Senator, you could do it.

I do not think it makes sense. I am going to try everything I know how to beat Mr. Crandall over the head. To me, that competition works in the best interest of the consumer. It works in the best interest of the travel agency. The other carriers, we are offering them everything we have. And if there is any way we can do it faster, like we talk about the bias display, I hope I have answered that. They want a bias display in Apollo, I will give it to them. Throw the switch, you want to see a Republic bias display, there it is. All they have to do is invest the money. We invested it, why don't they?

Senator KASSEBAUM. Well, why does it really work to the best interest of the consumer?

Mr. FERRIS. Because the travel agent, the travel agent may know—all right, may know—that out of, let us take Minneapolis that they were talking about. Out of Minneapolis, the best schedules probably by far and the greatest assortment of schedules are either Northwest or Republic. I think we could all agree to that. Very fair.

If I go into the unbiased display, the totally unbiased display the best we know how, it is done by an algorithm, and I look through it, I have got to go through a lot of the schedule display to pull up what I know is the carrier that has the strongest product offering in that market. So it might be easier for me just to go, boom, let

me see the Northwest flights. What do they have going? Or, boom, let me quick look at the Republic display.

Again, the consumer is pretty smart. They know what they want. If a travel agent steers them wrong once, or puts them in the wrong way, they will not be doing business with that travel agent very often. They will be coming back to somebody that provides them the services.

Travel agents want a system that is as unbiased as possible. They want to serve their customers. And if they want a biased system, it is for a need that the customer has demonstrated.

Senator KASSEBAUM. Well, I agree with that, but I did not see why continued really major competition with the other systems was going to benefit the consumer, because it seems to me what does benefit the consumer is totally an unbiased ability to project in the most efficient way.

Mr. FERRIS. The way it benefits the consumer, Senator, is things that we have created in the last 3 years were never dreamed of before: The capabilities we have come up with; the ability to provide the travel agent with the tools to answer the consumers needs and requests. All the different types of service: Smoking/no smoking; I want a tour; I want a rent-a-car; I want a hotel when I get there; I do not want to leave before noon, but I want to leave before here; and I want that special discount fare; and I can only book so many days in advance. All those things would not be possible, I do not believe, unless you had this wonderful tool. And that tool is continually made better because of this very fierce competition.

Senator KASSEBAUM. No, I think you are right. I am not sure how many times that many people want all of that information. Maybe they do. As I say, I think the traveling public is almost inundated with all of the choices that exist——

Mr. FERRIS. Isn't that wonderful?

Senator KASSEBAUM. Well, I do not know, frankly. I suppose it is.

Mr. FERRIS. It is.

Senator KASSEBAUM. But I do not think it makes it any cheaper. I mean, it is a cost that has grown, and to meet the additional services offered it obviously is a cost that grows. And in the consumer's mind, it is something that is billed by the airline as a wonderful service that is offered, but it is a cost that someone pays for.

So I do not necessarily think that all of these advantages that have grown out of these wonderful systems have necessarily been that beneficial for lower fares, if that is what we are looking at, for the consumer.

Mr. FERRIS. I would agree with you that the development of CRS probably is an added cost, but it is an added cost that allows us to enjoy the benefits of a deregulated system that is producing this plethora of products and prices and fares, and allows us to bring orderliness out of chaos.

Senator KASSEBAUM. The bottom line really is the travel agent, is it not, that they are working through? A good travel agent, as you say, knows the business, knows the cheaper, the most effective and efficient fares, and will know that I think no matter what all there is there on the screen.

Mr. FERRIS. They are aware of the product offerings.

Senator KASSEBAUM. And I think that on the whole that has been there in the business and it will continue to be, and a good travel agent has to keep abreast of that.

Mr. FERRIS. But they can only do so in this day and age by use of the computer. They cannot do so manually. Some can, some do, but the number of travel agents that will be on a manual system over time is just shrinking rapidly. They just cannot keep up without the modern information tool the computer is.

Senator KASSEBAUM. But the bottom line for you when you say of course it is the business to put people on airplanes, I assume of course you regard it as being United?

Mr. FERRIS. Of course.

Senator KASSEBAUM. All right. Thank you very much.

[The statement follows:]

STATEMENT OF RICHARD J. FERRIS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, UNITED AIRLINES, INC.

Madam Chairman and members of the committee, I'm Dick Ferris, Chairman and Chief Executive Officer of United Airlines. With me this morning are Joe Murphy, United's Corporate Controller, and Paul Blackney, Director of United's Marketing Automation Planning. These gentlemen are the experts on United's APOLLO system and are available, along with me, to answer your questions.

We appreciate the opportunity to give you United's views of the computer reservations system. In our judgment existing computer reservations systems benefit the public, the travel agents and other air carriers. We believe that the data before you show that the systems are not being used to unfair advantage and that the prices charged to other carriers for bookings are reasonably related to costs. United urges you not to take actions which would destroy such a valuable system.

An extremely important point is often overlooked in the attacks on computer reservations systems. When the industry was regulated and efforts to set up industry-wide systems failed, United and American took significant entrepreneurial risks. Both carriers made enormous investment in their individual computer reservations systems. They did so foreseeing consumer needs and anticipating demands of travel agents. United incurred large financial losses on its system in the early years as it developed the system and succeeded in putting APOLLO units in place.

With the advent of deregulation the entire nature of the airline industry changed. The struggle for competitive advantage was on.

United went into the new environment as a big, slow moving, inefficient carrier. We were vulnerable to competitive attacks from new, small, low costs companies who could readily undercut our fares because of their cost structures. Our economies of scale were not so significant as to offset those costs advantages. We had to adapt, to streamline, to cut costs, and to use available marketing advantages.

One of United's few advantages, heading into deregulation, was its computerized reservations system. It helped offset some important disadvantages and kept United Competitive in a different arena.

Some carriers have used their cost structures to establish competitve advantage; some have restructured, even using bankruptcy to establish new cost structures, some rely on equipment or service differences. We restructured, reoriented our marketing thrust, and used our computerized reservations system to our advantage. What's wrong with that?

Why, in a free market system, is it unfair to use a competitive tool? Our opponents seem to want to take the fruits or our innovation, investment, and imagination, and distribute them freely around the system to "equalize" competition, while they press on with their own competitive advantages.

In our view fairness means just that. Are efforts at breaking up APOLLO and SABRE fair to say nothing of necessary? We think not. Too many times it seems the innovator or entrepreneur or visionary brings something new or better into the marketplace only to be trampled later on in the anxiety to "equalize" competition. That's not fairness. That's destructive, and contrary to sound principles of the free market.

We are attaching several exhibits to this testimony which deal in detail with key issues raised here. We urge you to read those papers carefully.

I shall deal with three principal issues today:

(1) the question of breaking up existing computer reservations systems;
(2) the pricing of system services or, more specifically, the booking fees United charges other carrier-users, and the relationship of those charges to United's APOLLO system costs;
(3) the schedule displays with particular reference to preferential displays.

BACKGROUND AND HISTORY

To understand these specific issues we believe it is essential to understand the history of computer reservations systems. The history explains why the systems exist as they do today; the mechanics explain why and how the display screens work as they do. We have attached [1] our cost analysis, based on generally accepted accounting principles which contributes to an understanding of how our booking fees were established.

Between 1976 and 1976 several attempts were made to develop an industry-wide computer reservations system. All those efforts failed. The first attempt was the Donnelly Official Airline Reservations System ("DOARS"), begun in 1967. It failed for various reasons. Then, in 1969, the Automatic Travel Agency Reservation System ("ATARS") was formed by several carriers, including United, and the American Society of Travel Agents.

That system was attacked by the department of Justice which argued that an underlying exclusivity agreement constituted a per se violation of the antitrust laws. A year later, even though the exclusivity agreement had been eliminated, the ATARS project was terminated because of the antitrust issues inherent in an industry-wide system.

A third effort followed in 1974. This one was known as the Joint Industry Computerized Reservations System ("JICRS"). The industry was badly divided on a number of issues and JICRS was abandoned.

ASTA kept trying, and in 1978 the major carriers, ASTA and American Express agreed to set up a nonprofit corporation for the development of an industry-wide multiple-access system ("MAARS"). In 1979 the CAB approved the agreement to develop MAARS, but refused to grant antitrust immunity. Three weeks later, with antitrust action possible, the parties abandoned this system.

After almost a decade of futility, and having exhausted reasonable acronyms, it became obvious that the road to an industry-wide system led nowhere. Outside interests would not, or could not, invest the capital to create independent systems. Recognizing the growing need for an automated system to meet the public's needs, several carriers decided, individually, to take the risks, invest the capital, and develop their own systems. Thus was born United's APOLLO, American's SABRE, TWA's PARS, Eastern's SODA, Delta's DATAS II and Tymshare's MARS PLUS.

The investment in these systems runs into hundreds of millions of dollars. The systems are competitive, with the fiercest competition between APOLLO and SABRE, the two largest. Competition has led to enhancements scarcely dreamed of 10 or 15 years ago.

Previously, travel agents had the task of thumbing through hundreds of pages in the Official Airline Guide, find a schedule desired by a prospective passenger, telephone the airline to find out where space was available, write the ticket for the customer, and go through a separate process for hotels and car rentals. If space was not available, the process had to start all over again.

Today CRS provides information about flight schedules, fares, hotels, car rentals, tours, amusements and other items in a matter of seconds. With a CRS a travel agent can book space on flights and at hotels, assign seats, order special meals, arrange limousine service, provide foreign language translators, and secretarial services and, even babysitters. For the consumer some systems can search out the lowest available fare and how to obtain it.

We developed those programs. We're proud of them. They're a product of competition and they perpetuate competition, as we duel with each other in the marketplace. That's consistent with the purposes of the Airline Deregulation Act of 1978, and that's the way it should be.

ACTIONS OF THE CAB AND DOJ

As the systems developed and airline deregulation took hold, several carriers which did not have their own systems attacked the systems of United and American. In 1982, under prodding from user-carriers, Congress directed the CAB to inves-

[1] The attachments referred to are in the committee files.

tigate CRS use and practice. Meanwhile, the DOJ had issued its own Civil Investigative Demand and was conducting its own probe.

After analyzing thousands of pages of data, the DOJ found no basis for civil or criminal action against CRS vendors and, instead, submitted comments to the CAB in a rulemaking proceeding instituted by the Board. On November 14, 1984, just four months ago, the CAB issued rules governing the use of CRS and booking fees charged to carrier-users. For purposes of this hearing the two pertinent CAB rules deal with schedule displays and carrier access fees. The Board considered, and rejected, the proposal, as had Justice Department previously, that United and American be prohibited from offering their CRS services to travel agents.

BREAKUP OF COMPUTER RESERVATIONS SYSTEMS

This proposal has been considered—and rejected—by both the CAB and the Department of Justice after many, many months of data collection and analysis. We believe that the independent judgments of those two agencies should be conclusive.

Divestiture is an extremely drastic remedy which Congress has only rarely invoked. Only twice did Congress act, and in those cases Congress broke up holding companies that were not functionally related to one another. (See Exhibit B, pp. 2–3). The airline business is far different.

I shall not go into all the detail on this very important issue. Rather, I refer you to Exhibit B. It is a comprehensive memorandum prepared for United by the Covington and Burling law firm. That memorandum clearly demonstrates why breaking up APOLLO is at the same time too drastic and too inappropriate. Note particularly that breaking up is only appropriate where there are no other less drastic alternatives. Also note that the design of APOLLO and other systems does not readily adapt to breaking up as in the case of public utility and bank holding companies. APOLLO is an integrated system serving both travel agents and United's internal functions.

Furthermore, if the legislature ordered breaking up, who would pick up the pieces? Such action would affect at least five computer systems. How would they be integrated, at what cost and at what inconvenience to the public? In short, the entire notion of breaking up raises more questions than it answers. It seems inconceivable that Congress would want to turn an efficient, public oriented system into chaos—entirely without foundation.

Breaking up action would also ignore the enormous investment United has made in APOLLO. When it became clear that an industry-wide system was not to be, United began investing heavily in its computerized system, and taking the entrepreneurial risk of success or failure. Any legislation designed to divest that system—that property—would, in our judgment constitute an unconstitutional taking. Once again, I refer to Exhibit B which cites considerable authority in support of our position.

Even if there were a break-up, what then? Who would run the system and under what conditions?

An independent third party would not be subject to the department of Transportation's rules on preference or pricing. The most likely course for a prudent business person would be to sell preferential display. And, in view of the enormous start-up costs necessary (see exhibit B for an idea of magnitude of investment) there is no evidence that a third party system would be less expensive for the user. Also, a third party industry system would most likely be a monopoly. In our judgment an independent third party monopoly puts us all—carriers, travel agents, and customers at great risk.

The existing system is not perfect. No system is. But, there are remedies for imperfection far short of breaking apart existing systems. CAB and Justice Department examined CRS systems in extraordinary detail and found what they consider to be imperfections. But, CAB and DOJ both concluded that there are adequate remedies short of a taking. The Board then issued its CRS regulations. Those CRS regulations have only been in effect since mid-November 1984, four short months. Isn't it preferable to allow those regulations to be in effect for a reasonable time before reopening issues that took two years to resolve?

Finally, it should be recognized that eleven aggrieved carriers have instituted an antitrust action against United and American. We submit that antitrust and break up issues are more suited to decision in the judicial arena than in the legislature. Indeed, that's one compelling reason why divestiture has so rarely been the focus of legislation.

In our judgment the arguments against break up are overwhelming. Those arguments find support in the actions of the DOJ and the CAB. Neither found basis for

breaking apart APOLLO after exhaustive investigation. We urge you not to take unnecessary, unwarranted action.

CRS VENDOR BOOKING FEES ARE REASONABLY RELATED TO COSTS

All carriers, regardless of booking services, have access to CRS systems. All carriers who wish to use CRS booking services pay booking fees to CRS vendors.

Prior to the CAB investigation carrier-users paid individually negotiated, differentiated rates to the vendors. The rates varied, with "co-hosts" paying more for preferential displays. Some carriers actually paid nothing.

The CAB rules now require CRS owners to charge non-discriminatory fees, and carriers now may have their displays shown even though they may choose not to pay booking fees. Example: APOLLO displays People Express schedules although those flights cannot be booked through APOLLO. If an APOLLO equipped travel agent is asked to make a reservation on People Express, that agent must call People Express to make the booking. It's noteworthy that several carriers have chosen not to participate in APOLLO or SABRE. This illustrates that it is not essential to participate in order to succeed.

If a booking is made and later cancelled, the fee is refunded.

In compliance with the CAB rules, United charges a uniform fee of $1.85 per booking to carrier-users. This fee is cost related, as demonstrated in Exhibit A, and discussed in more detail later.

United is complying with the CAB rules which are now administered by the DOT.

In establishing the rule on uniform booking fees, CAB considered a "zero fee option" proposed by the DOJ. Under this proposal, carrier-users would pay no booking fee. the costs would be borne entirely by travel agents (who objected vigorously to the proposal). CAB rejected the proposal, citing the burdens on travel agents and the general unfairness to CRS owners.

United's Exhibit A is a 10-year financial history of APOLLO Services, together with a three-year projection for 1985–1987 which demonstrates the reasonableness of the $1.85 booking fee. Our exhibit has been prepared from the official accounting records of United which conform to generally accepted accounting practices. Please note that all costs and expenses of United's internal reservations system have been excluded, that we have imputed booking fees that APOLLO Services might have received from United, and that allocations of expenses are made on the basis of message traffic and other factors. These techniques insure that exhibit A fairly represents United's financial history and projections for APOLLO.

What does our exhibit demonstrate? First, it shows that for the thirteen year period, Untied's rate of return is 5 percent. That's not only reasonable, it's a very low return.

In the years prior to 1984, United lost money on APOLLO. Why? Because we started with an internal reservations system, began to see the need for an external system, experimented with that system by placing sets outside of United, and until the 1980's never really regarded APOLLO as a separate profit center. Moreover, in competition with SABRE we were investing heavily in order to maintain a competitive product. We actually looked upon APOLLO as we did telephone lines or other supports, as means to put passengers on airplanes.

It should not be overlooked that in the earlier years under deregulation the carriers developed an interline system covering ticketing, reservations, baggage and other interline actions. Those services were interchanged without billing although the larger carriers shouldered far more expense than the smaller ones. Regulation nurtured the system.

Deregulation changed all that. Faced with new low cost and low price carriers, and the end of regulatory price protection, we had to reexamine every facet of our operation. One was APOLLO. We quickly recognized that we should be operating it as a profit center, a competitive one, particularly against SABRE. So, we began to adjust prices accordingly.

When the CAB ordained that we had to use uniform pricing we looked at all our costs and our anticipated future investment. We did what any business enterprise does: we examined our costs, our customers and our competition and we established a fair price for our service. Understandably, some carriers complained as user charges went up or down. At least one carrier would willingly have its price go up in exchange for a preferential display, but that's not to be.

Our exhibit A demonstrates that United's prices are fair, based on our costs. Our returns are well within reasonable limits, and we assume no increases beyond $1.85 per booking.

What would a third party vendor charge? More. United's investment in Apollo is about $150 million and increasing dramatically. If you use that as a reasonable base and consider startup costs for a new enterprise, it would be reasonable to see booking fees far in excess of $1.85. Furthermore, a third party vendor would have every incentive to sell preferential display. Any reasonable and prudent business person would do that to maximize profitability. And, since a third party would not be subject to Department of Transportation regulation there would be no control over the selling of preferential display.

The DOT and DOJ apparently agree with United's position that existing higher CRS booking fees are neither unreasonable nor unanticipated.

A few weeks ago Justice, on behalf of the DOT, filed its brief in the United States Court of Appeals for the Seventh Circuit. The case is a broad appeal on the validity of the CAB CRS regulations.

Among other issues in the case, Republic Airlines is arguing that the Board's pricing rules do not go far enough.

The Board's rules essentially are intended to prevent vendors from charging very high fees to their competitors while allowing the vendors to realize a reasonable return.

Republic, however, wants price controls in the form of government regulation of CRS prices.

Justice makes compelling arguments against additional government controls, and the Justice brief supports the position I have just outlined to you.

Here are specific supporting quotations from the Justice brief:

"When the Board's rules took effect, the vendors established new fees with the result that Republic and some other carriers had to pay higher fees."

* * * * * * *

"An increase in access fees was predictable, for the access fees and travel agent subscriber fees had not covered costs."

* * * * * * *

"The Board's prohibition on bias necessarily required the vendors to increase their user charges if they wanted to obtain profit from the systems."

* * * * * * *

"The Board concluded that requiring vendors to charge 'reasonable' fees would be impracticable. That requirement would require someone, probably the Board or its successor agency, to determine what fees were reasonable. Such a determination would involve 'unusually great' accounting complexities, for it would require the allocation of investment and costs between (sic) three classes of users: the non-vendor carriers, travel agents, and the vendor itself, who used much of the same hardware and software for its internal reservations system. Any setting of fees could also distort the CRS market and discourage new entry and innovation within the CRS industry."

* * * * * * *

"Republic wrongly believes that the Board's rule would deprive any carrier of bargaining power. It theorizes that the vendor's interest in obtaining monopoly profits would make it prefer excluding that carrier rather than lowering every other carrier's fee.

"Republic's argument betrays a misunderstanding of the market: while the vendors do not compete for the carrier's partronage, they do compete to some extent in seeking travel agent subscribers.

"Travel agents will obviously prefer a CRS that includes all major carriers, so a CRS vendor cannot afford to charge excessively high fees if doing so would deprive it of one or more major carriers. In fact, events have proven wrong Republic's assumption that each vendor can charge as much as it wants. The vendors did not make the new fee levels equal to the highest fees being charged before. Instead, the new fees are closer to the fees previously charged the favored carriers than they are to the fees previously paid by the least-favored carriers."

"Nothing that the courts have held that monopolists may have a duty to deal with their competitors on reasonable terms, Republic asserts that the only rational fee rule is one which allows the vendors only a reasonable fee. But here Republic ignores the difficulties inherent in determining what fees are reasonable. Even if a reasonableness requirement were theoretically valid, as a practical matter it would be unworkable.

"First, Republic wrongly minimizes the costs involved in determining reasonable fees. It asserts, for example, that such a determination involves only questions of a kind 'routinely answered by the Board.' Devising an answer to such questions was never routine, as the Board knew well from its own experience. For example, the establishment of international mail rates for several U.S. carriers took over five years. See *Trans World Airlines* v. *CAB*, 637 F.2d 62 (2d Cir. 1980). Other parties in the Board proceeding accordingly recognized that any rate making proceeding would be 'very difficut and cumbersome.' "

* * * * * * *

"Secondly, Republic errs as well as claiming that rates fixed by the Board or the DOT would not distort the market. Republic itself concedes that a new entrant could only charge the rate fixed by the Government and an existing vendor could not change its rates without Government approval. Any such restrictions would necessarily take away any flexibility from the vendors and thereby cause market distortions."

"Finally, Republic ignores entirely the Board's point that a reasonable rate requirement would be ineffective until after the completion of the mammoth investigation necessarily required by Republic's proposal."

(Brief of the Department of Justice in the United States Court of Appeals for the Seventh Circuit, February 25, 1985, case no. 84-1877, et al., *United Airlines, Inc., Republic Airlines, British Airways PLC, Petitioners* v. *Elizabeth Hanford Dole, Secretary of Transportation, Respondent*, pp. 91-96, footnotes omitted).

Justice goes on to explain why a "reasonable" fee requirement is invalid and unworkable.

United's exhibit A, and the arguments advanced by DOJ validate United's booking fees. We think that any additional regulation is unwarranted and contrary to the facts.

CRS DISPLAY

As noted earlier, the CAB rules in effect since November require the primary display to contain no preference, but permit preferential listing on the secondary display.

Prior to the CAB investigation, CRS owners ranked flights according to criteria they developed, including preferential displays, closer to the top of the screen, for themselves and their "co-hosts" (carriers who were willing to pay more for better shelf space.) The new CAB rules, however, prohibit CRS owners from using preferential displays on their "primary" screens. Carrier owners can only use objective criteria, such as nonstop flights, single plane service, on-line as opposed to interline connections, and elapsed time to establish their displays. The Board did permit preferential displays to be used on "secondary screens." (See discussion below.)

First a few words on how APOLLO operates. In conforming to the CAB rules, United developed an algorithm for the primary display based on consumer research.

We found that passengers preferred nonstop, single plane, on-line connecting and interline connecting service in that order. Therefore, we constructed a display system based upon those customer desires.

APOLLO is programmed to search for the first 16 flights starting 2 hours ahead of the input time. If no input time is used, APOLLO will assume 12:01 a.m. to start assembling the "work area," and 8:00 a.m. as the requested input time.

Once the flight items in the "work area" are established, APOLLO then applies points for elapsed flying time and minutes from the requested input time.

No carrier preference is indicated unless the carrier has elected not to participate in Apollo Services. In that instance, carrier identity penalty points are added to overall elapsed flying time and minutes from the requested input time.

In case of a tie, i.e., the same number of points for two or more flight items, flights will be aligned in time departure. If departure time is identical, flights will be displayed in random carrier order each time the tie is encountered.

Our display is not constructed to disadvantage our commuter partners. That would be contrary to our own interests. We do not claim that our display serves all carriers equally well. It cannot since schedules differ. We do claim that our display reflects what the customer tells us he prefers.

The second and more serious complaints, about United's CRS display concerns APOLLO PLUS, our secondary display. In the CAB rulemaking the Board clearly permitted a secondary preferential display, and we believe we are comporting with the Board's rules.

To understand our secondary display it is important to keep United's central philosophy in mind. We have decided that the travel agent is, and shall remain, our primary means of distribution.

We have chosen the travel agent over our own internal distribution mechanisms, including our own city and airport ticketing outlets, other external ticketing mechanisms, and ticketing by mail.

From that perspective, it's easy to take the next logical step. United will give the travel agent the necessary tools he wants to use to serve the needs of his customers. That's why APOLLO has many enhancements, why there's an accounting package available, and why there's an optional preferential display called APOLLO PLUS.

In promulgating its CRS rules, the Board discussed at length the issue of access to primary and secondary displays by CRS users. The DOJ had argued that secondary screen availability could become a "loophole" whereby CRS providers could make "their own secondary display more attractive to agents than the primary." 49 Fed. Reg. at 32,550. The so-called "Joint Carriers," several of which were among the 13 carriers which signed the December 6 letter, contended that the prospect of such a "loophole" would be "less likely if (the Board) . . . required that users of primary screens have available all services or options open to secondary display users . . ."

The Board rejected the DOJ argument that there should be strict limits placed upon secondary screen availability to CRS customers. Instead, it amended the rule to make clear its original intention "that its requirements only apply to the primary displays in each airline CRS offered to a travel agent," and specifically ruled that "additional displays . . . need not be unbiased" Id. The Board stated that its: "concern in this proceeding is to ensure that agents have access to impartial information through their CRS's. So long as each CRS includes a neutral display of all carrier offerings that is as useful to the agent as any other displays, this objective should be fulfilled. *The additional ability of system users to refer to biased screens to improve their knowledge of one carrier's services does not undercut competition or the public interest." Id. (Emphasis added)*

To close the "loophole" feared by the DOJ, the Board stated, in accordance with the Joint Carriers' argument, that it would include a specific requirement that the primary display be as useful to this subscriber in terms of functions or enhancements offered, and the ease with which such functions or enhancements can be performed or implemented, as any secondary display maintained by the system vendor." Id.

The Board also stated its "intention that Vendors not make primary displays so difficult or time-consuming to use that subscribers automatically turn to biased secondary displays to serve their clients." Id.

United provides travel agents access to United's primary and secondary displays in a manner that is completely consistent with the Board's rules. First, in its normal operating mode, United's CRS displays APOLLO-BASIC to subscribers. This is United's "primary" display, and is configured in a manner that fully complies with Section 255.4 of the Board's rules. If an operator of any CRT receiving APOLLO-BASIC wishes to access APOLLO-PLUS, United's secondary display, for any transaction, he or she may do so by keying a three-digit code.

Second, some travel agents have requested a different means of accessing APOLLO-PLUS. Therefore, Apollo Services permits such an agent to adjust its CRT's to display initially APOLLO-PLUS on all of the CRT's within the agency, with APOLLO-BASIC being accessible by CRT operators for any transaction by keying a three-digit code.

Third, another alternative available to an agency is to choose either APOLLO-BASIC or APOLLO-PLUS for all transactions on all CRTs.

As the earlier quoted excerpts of the Board's order demonstrate, a stated objective of the Board's CRS rules is to provide the agents, i.e., the "system users" in the Board's terminology, with the option of using an unbiased display in addition to biased displays. United's Apollo Services does just that. An agent's choice of APOLLO-BASIC or APOLLO-PLUS, either as the initial display or as the exclusive display, is entirely within its own discretion. United has not retained for itself the capability of changing which display will be used by an agent. Rather, the choice and the ability to effectuate that choice lies solely with the agent, and it is the agent that determines which display will be viewed by its CRT operators. Moreover, the agent can change its choice at any time in a matter of seconds. If the agent does not exercise a choice, APOLLO-BASIC will be the display viewed unless the operator chooses otherwise.

All of these options are intended to give travel agents a wide range of means to serve their customers. Agents look to the needs of their customers and react according to those needs. That's why approximately 15 percent of travel agency locations

use APOLLO-PLUS, and about 40 percent of APOLLO bookings are on APOLLO-PLUS.

American's claim that it must implement a similar capability in SABRE because of competitive pressures merely proves that the options provided through Apollo Services are fulfilling agents' demands. Clearly, the only reason American feels competitive pressure is because SABRE agents are demanding a similar capability. Thus, all United is doing is satisfying agents' requests and providing them more options, not fewer options.

APOLLO also has the capability of bringing up the internal, preferential displays of other carriers whenever those carriers develop the software. An APOLLO agent can now call up TWA's flights exclusively, and soon will be able to call up Delta's flights exclusively, and others will follow.

The ability to call up exclusive displays of other carriers means that agents will be able to get last seat availability on those carriers simply by using that display. It's another tool we furnish our agents, although it clearly has no advantage for United.

Please note that all carriers may offer override commissions to all travel agents, so that TWA, or Delta, or Republic, or Continental, or Western, can offer overrides to Apollo agents for bookings on those carriers.

United pays overrides to agents on the basis of their total United bookings (not on the basis of APOLLO-PLUS). This means that there is no rational basis to provide a special incentive to use APOLLO-PLUS and agents continue to have the primary incentive to meet consumer demand.

CONCLUSION

Existing computer reservation systems are products of innovation. They serve the public, the industry and the agents very well.

Both rewards and risks are greater for those who take the entrepreneurial plunge and attempt to develop something better for the marketplace. United and American took that risk. There is no basis in fact, logic or law for now stripping away those systems.

CAB regulations have only been in effect four months. Yet the effect is underway once again by carriers who were unwilling to take the risk years ago—the effort to destroy the system or to subject it to even tighter regulation.

It would be premature to take further action in the absence of compelling proof that CAB's new rules are inadequate. There is no such evidence.

United's booking fees are cost related as demonstrated in United's exhibit A. The DOJ, a strong participant in the CAB rulemaking on CRS, supports vendor pricing practices.

Schedule displays conform to CAB rules and to expressed consumer demand. Secondary screens have been developed to put another tool in the hands of our primary means of distribution—the travel agents.

Finally, opponents of the existing system are having their day in court—the proper forum to hear and resolve antitrust issues of this nature.

Under the circumstances, there is simply no basis for additional, restrictive regulation.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. What innovations has United developed on Apollo that it has not made available to other airlines?

Answer. The answer is none. However, it should be noted that all airlines do not chose to avail themselves to all innovations provided by Apollo Services.

Question. What kind of information or data is routinely provided other airlines to allow the confirmation of the number of Apollo bookings? Can participating airlines audit the charges or determine how the number of transactions affecting them are counted?

Answer. The marketing data provided by Apollo Services and required under CAB/DOT Rules is sufficient to allow other airlines to confirm the number of bookings generated by Apollo. United has explained to participating carriers how Apollo Services bills for segments booked. We are not, however, familiar with the internal audit capabilities of other carriers.

Question. Mr. Ferris, in your statement, you acknowledge that the existing system is not perfect and that there are remedies for imperfection that are short of divestitute. If the Committee were to consider such an option, what would it include?

Answer. The first, and clearest, option is to allow the CAB rules to operate. Those rules are only four months old. The second option has been exercised. Three carriers have agreed to eliminate the secondary screen and its lock-in feature. We have cooperated with the Department of Transportation in reaching this agreement.

Question. Do you think encouraging travel agent booking off the secondary screen violates the intent of the CAB rules?

Answer. The question is misleading. United Airlines does not encourage travel agent booking off the secondary screen. We provided the secondary screen as another tool for the travel agent's use in serving his customers. Use of the secondary screen was entirely in the control of the agent. United had no power to control its use (or non-use) and United paid no incentives to encourage its use.

The issue in now moot since United will cease providing the secondary screen on April 7, 1985.

Question. Are travel agents paying United's fees which cover fully the out-of-pocket maintenance and communications costs, plus full recovery of the hardware costs at each location?

Answer. The fees collected by United from travel agencies fully covered all agency maintenance and installation, communication and hardware depreciation expenses in 1983 and 1984.

Question. How does United account for the costs they have incurred to buy out a competitor's CRS system at a travel agency?

Answer. Financial assistance provided to automated travel agencies who convert to Apollo was excluded from the Apollo Services Financial Summary submitted to the Committee on March 19, 1985. (On certain internal documents it has been included as a memo item.)

Question. From the financial data you submitted as a part of your statement, 1984 is shown as being the first year a profit was made on Apollo. How much of that profit came in the last six weeks of the year, when CAB rules required uniform access fees?

Answer. Preliminary analysis indicates that virtually all of the Apollo Services 1984 profit was booked in the last six weeks of the year.

Question. By charging $1.85 for each flight segment booked, United will soon recover all development costs and operating losses incurred since the creation of Apollo. At that point, will United consider revising its pricing structure to more accurately reflect its costs?

Answer. The Apollo Services Financial Summary indicates that Apollo Services will not produce a cumulative net profit until the second half of 1986. At the end of 1987, our overall return on investment will be just 5%, clearly a marginal return given the significant amounts of capital we invested in a risky high-tech project. We have no plans to reduce or raise our fees at this time. We will not be able to make such a decision until we have a clearer indication of future investment requirements.

Senator KASSEBAUM. The next panel is Mr. Adamson, president of Air Midwest; Mr. Morro, chief executive officer, Wings West Airlines; and Mr. Coward, President, Air Virginia, Inc.

It is a pleasure to welcome all of you, and particularly Mr. Adamson. I must confess a parochial interest, because Air Midwest is headquartered in Wichita, and has done exceptionally well in the Midwest, and we are very proud of it in Kansas.

Mr. Coward, we will start with you—Is that all right?

STATEMENTS OF MARK MORRO, CHIEF EXECUTIVE OFFICER, WINGS WEST AIRLINES, INC., SAN LUIS OBISPO, CA; GARY M. ADAMSON, PRESIDENT, AIR MIDWEST, INC., WICHITA, KS; AND CURTIS M. COWARD, PRESIDENT, AIR VIRGINIA, INC., LYNCHBURG, VA

Mr. COWARD. I believe it is Mr. Morro.

Senator KASSEBAUM. Mr. Morro? All right.

Mr. MORRO. Yes. Thank you, Madam Chairman.

I appreciate this opportunity to present the concerns that we, the Regional Airline Industry, have on this subject. Excuse my voice, I am fighting a cold amongst other things, this afternoon.

I am Mark Morro, and besides being the chief executive officer of Wings West Airlines, I am also the chairman of the Regional Airline Association. With me today, and you made the introductions, are Curt Coward, chief executive officer of Air Virginia; and Gary Adamson, who is the president of Air Midwest.

First, I would like to deviate somewhat from the prepared statement that you were presented with today. The present CRS rules were established to eliminate the anticompetitive nature of the airline reservations system. Contrary to some of the testimony we heard this morning, and in particular that of the DOT, on the basis of 4 months' experience under the CAB's final rule for CRS, it is already clear that the current practices of the vendors are predatory and anticompetitive.

Further, that if left unchecked, these manipulative practices will continue to reduce competition at an alarming rate as we have seen in the recent months, and will ultimately lead to a limited number of national airline systems centered around those major airlines which control the distribution of the schedule information.

On the basis of four months experience under the CAB's final rule on computer reservations systems [CRS], the Regional Airline Association believes it is already clear that the current practices of the computer reservations systems vendors are predatory and anticompetitive. RAA believes, further, that if left unchecked, these manipulative practices will continue to reduce competition at an alarming rate as we have seen in recent months, and will ultimately lead to a limited number of national airline systems centered around those major airlines which control the distribution of schedule information. Bluntly, regional airlines have offered CRS services they cannot do without, at prices they cannot afford.

Now sound public policy and fair competition require that the CRS rule be amended to ensure the dissemination of schedule and service data on a basis that is accurate and that is fair, and that the cost of that distribution be reasonable. Instead, the current rule has produced outrageous levels of bias at an overwhelming cost, and where possible these costs are being passed on to the consumer in the form of higher fares.

Therefore, it is necessary to address both of these abuses. The promotion and the use of the so-called secondary or biased displays effectively restricts the public's access to accurate information on alternative routings. In doing so, those carriers who are not CRS vendors are seriously prejudiced regardless of their level of service.

There are literally hundreds of examples where alternative service and timely connections are buried or eliminated all together from computer displays so that host carriers can gain a competitive selling advantage for service which is, in many cases, inferior by any objective standard. And without question, again the consumer suffers.

The report presented to Congress in June 1983 made it overwhelmingly clear that the screen displays were critical to sale. The bias displays on both the first and second screen displays are specifically designed to abuse that power. As an example, the Apollo-

Plus display, United's secondary screen, penalizes all non-United Airline flights 59 minutes in elapsed time and then begins its listing on the critically important first screen with whichever United flight appears in the selected market up to 2 hours prior to the requested departure time.

Therefore, if another airline has a nonstop flight at 4:55 p.m., where the passenger has requested a 5 p.m. departure, and United has flights at 3:15 p.m. and 3:45 p.m. and 4:15 p.m. in the same market, the passenger will be told of these three United flights before the closest flight of another

carrier to his desired time of departure, even if the non-United flight is offered in identical equipment with the same flight time and fares.

Apollo-Plus has to date been the most conspicuous example of this abuse, but now American's Sabre system has similar second screen displays, as was testified to here a little bit earlier. As a result, nearly 80 percent of all the travel agents are now being offered biased displays, providing strong enticements to the travel agencies to use these biased displays, and by building in a variety of controls to keep the individual selling agent looking at the biased display, the host airline receives a tremendous marketing advantage which is wholly unrelated to the quality of his service.

The Department of Justice forewarned the CAB that the CRS vendors would consider the existence of a second screen a loophole through which CRS hosts would make their own secondary screen more attractive to the agents than the primary screen. The CAB was simply naive not to have anticipated this abuse and the results have been predictably devastating to the regional air carriers.

Wings West is also very concerned about the first-screen display criteria for connections. New criteria needs to be established to give all carriers equal chance to compete. Elapsed flying time appears to be the only criteria where each carrier is given equal access to connecting traffic. The present system favors online carriers and dual-designated carriers. Clearly, the consumer in many cases could arrive at his or her destination sooner by using an off line carrier to connect.

This online criteria abuse for first-screen display was designed by the CRS vendors to benefit their large hub system, and is not necessarily in the best interests of the traveling public.

The CAB recognized that the pricing issue was not fully addressed in their final rule, also. The cost issue has been muddled in an accounting miasma of allocation. Most RAA members experienced increases in reservation costs in the range of 300 to 500 percent upon the implementation of the CAB decision in November.

These costs have been enthuastically rationalized and defended by the vendors, but never really supported. Regional carriers have received invoices with no backup, and therefore have no way of reconciling the charges against those bookings being made. The CRS vendor simply deducts the arbitrary charges from the regional airline account, and the airlines clearinghouse. The procedure for payment is automatic with no useful documentation.

During the CAB rulemaking procedure, the RAA supported a minimum access charge as proposed by the Department of Justice. At least we believe that a two-tier pricing system should be provid-

ed. The present charges are on equal basis for all carriers, and this basis clearly is disproportional to the smaller short-haul carriers' average ticket price which is significantly less than the long-haul carriers or the CRS major vendors.

A standard must be applied to all fees in order to subject vendors to objective scrutiny. It was fatuous to believe that nondiscrimination language alone would be an adequate bar to pricing abuse. The plain fact is that Apollo and Sabre are so critical to passenger sales that these vendors could charge and receive nearly any price for their services.

Clearly, administrative review is now the only realistic constraint available to cost abuse, and so I must therefore support this mechanism.

In confronting the twin problems of cost and bias, the notion of divestiture has been gaining some popularity. The assertion seems to be that by putting these powerful marketing tools in the hands of non-airline vendors, that there would be greater competition in price and more objective displays of information.

If divestiture is the only alternative to the present abuse circumstances, the RAA and Wings West would necessarily support such action. It appears to us, however, the divestiture is not the exclusive means of redressing the problems.

In proposing remedial action, we seek instead to use simple expedient means. The current crisis can be abated by directing the Department of Transportation to expeditiously pursue appropriate amendments to part 255 that would impose important controls. Fees should be provided to be reasonable allowing for both full cost recovery and reasonable return on investment based on realistic cost allocation.

A separate lower fee for regional carriers should be required due to the significantly lower average fares. No vendors should be allowed to provide any display other than the primary display, and Wings West further believes that the first-screen criteria needs to be changed so that all carriers have an equal chance to compete in the marketplace.

These restraints imposed together will promptly address the areas of the present abuse. The public's interest in fair competition requires that the Department move aggressively to stop obvious abuse. As the chairman of the RAA and CEO of Wings West, I therefore respectfully urge that this committee do so at once.

What I would like to do is turn this over now to Gary Adamson, and then Curt Coward, and we will come back for some questions.

Thank you.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. In his testmony, Republic Airlines President Daniel May stated that the situation today, under the CAB rules, is worse than before they took effect. Do you agree? If so, do you think we should consider repealing those rules, as was suggested by Mr. Smith of the Competitive Enterprise Institute?

Answer. Yes, I agree with Republic President Daniel May that the situation with the CRS rules today is worse than it was prior to the implementation of those rules on November 14, 1984. Prior to the CAB rules taking effect, there was general equality in the industry; commuter airlines were generally on either the Apollo or

Sabre "team." Since both these CRS systems had approximately the same market share of travel agents, one commuter did not have any significant competitive advantage, since each system was biased in favor of the carrier in the particular reservation system.

With the introduction of the CAB rules, the competitive balance was shifted from the Sabre and Apollo "teams" to the "big airline" and "small airline" teams. The CAB rules established only that carrier identity could not be used in establishing the displays shown to travel agents. The poorly reviewed "customer preference factors," used by both Apollo and Sabre to bias the primary screen displays, favor on-line connections over off-line connections. The benefactors of this bias are the large carriers which, not surprisingly, just happen to be the vendors of the two large CRS systems, Apollo and Sabre.

While it could be argued that on-line connections are a convenience to the consumer, both systems minimize convenience factors such as time of departure, least amount of flying time, connections within the same terminal building, and lowest fare. On-line connections are not even penalized in comparison to direct flights in which no change of aircraft is required.

The recent agreement between United Airlines and American Airlines to remove second screen bias displays is only the first step necessary in a process which must now continue. If the industry is to have a truly free competitive environment and the consumer unbiased information from which to make a choice, then primary screen display criteria must now be re-evaluated.

Question. Can you please highlight the major problems commuter airlines now face under the current CRS situation? How do commuters differ from the major carriers in this regard?

Answer. The wave of dual designator programs that have been announced recently is a good indication of the problems caused by the new CRS rules. Commuters have seen very quickly that the balance of power has been shifted to the large carriers. The commuters that have signed up for the dual designator programs are becoming "large carriers" because of this shift of power that CAB rules have allowed.

Commuters are particularly susceptible to this type of pressure. Most commuters depend very heavily on interline feed traffic. The major carrier who can supply the greatest amount of feed is the preferred carrier to the commuter. Many of the non-commuters, however, have traffic which flows only on their own system. As such, they have not been affected as directly or to as great an extent.

The new CRS rules are having exactly the opposite impact that they were intended to have. Rather than foster equal competition, these rules are fostering a greater concentration in the industry. The CRS vendors use the dual designator to get earlier control over the passenger and, with the CRS rules currently in effect, to keep the passenger on its route systems for the greatest amount of time.

Without question, the move toward dual designators clearly indicates that bias continues to exist in the primary screen display. Without this biased primary screen display, dual designators would have little appeal.

Question. If the Committee were to consider legislation of some sort in an attempt to resolve these problems, how could we best address the commuter industry's concerns?

Answer. The CRS rules must be made in such a fashion that no one carrier or type of carrier is favored. The rules governing CRS must be controlled to stop the misuse that has already been seen in letting the CRS vendors establish their own rules. I see little alternative but to use a total elapsed flying time and time of departure criteria to determine how flights are displayed on the reservation screens. These rules must be formally established with no discretion left to the CRS vendors.

Question. Can you tell the Committee how booking fees for your airline changed with implementation of the CAB rules last November?

Answer. Prior to the implementation of the CAB rules on CRS, Wings West paid no booking fees to other carriers. The net result of the new rule was to increase Wings West's costs approximately $40,000 per month. This represents an overall 2-3 percent increase in Wings West's total operation expenses. For the most part, these costs have been borne by the consumer. Wings West has not been able to recover this increased cost in markets in which it competes with United Airlines, the owner of Apollo. These charges have given United an additional advantage on these routes in that Wings West pays the fees and United receives the fees. The $3.50 difference on a market like Monterey-San Francisco gives United an almost 8 percent advantage on the average yield in this market.

Question. In your testimony, you argued that the booking fees should be made reasonable. How would you envision the Committee establishing a standard for rea-

sonableness, especially after the CAB declined to do so, given the size of the undertaking?

Answer. The issue of reasonable fees has two main facets. First, there is the question of overall profitability to the CRS vendor. There is effectively a monopoly situation in this area with Apollo and Sabre controlling 80 percent of the market. In view of the fact that the CRS systems are a potent competitive tool in the industry, I see no alternative but to control the overall costs and fees charged by these vendors on a basis similar to utility.

As to the fees themselves, clearly each carrier should pay its fair share. I favor a system which equates the fees to value received by the carrier. Wings West's average yield is $55. To pay $1.75 a booking at this yield while a large carrier pays the same fee for a $200 or even a $500 yield appears to me to be totally unfair. I would propose a system in which half the cost is based on a transaction and half the cost on the value of the ticket.

Senator KASSEBAUM. Mr. Adamson.

Mr. ADAMSON. Senator, thank you very much. It is certainly a pleasure to be before you today.

I just have a couple of very quick comments. For one, you heard Mr. Ferris outline the various customer benefit biases that are applied to the reservations system, and if you recall the last criteria that is applied is an interline connection.

The regional airline industry, because of the short haul, is naturally an interline carrier. We cannot carry customers from their origination to destination. So those unbiased displays are very biased against any regional that is competing. You find now in an effort to indicate in the reservations systems that those are now an on-line connection where various regional carriers are sharing the two-letter code with the trunk carrier that they are connecting with, therefore giving them one step up on the bias that is displayed.

One of the problems that we are having are the charges the way they are administered, and the substantiation of those charges. For the month of February, Air Midwest—and this does not include our recent acquisition—but Air Midwest was billed approximately $63,000 for 39,600 passenger emplanements. If we were to apply $1.75 per passenger, that would be 91 percent of our total boardings, when in fact only 60 percent of our total boardings are generated through travel agencies. So approximately 30 percent of our charges are evidently for bookings for passengers that never show.

Those are the two points I wanted to make. I will turn it over to Curt.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. In his testimony, Republic Airlines' President Daniel May stated that the situation today, under the CAB rules, is worse than before they took effect. Do you agree? If so, do you think we should consider repealing those rules, as was suggested by Mr. Smith of the Competitive Enterprise Institute?

Question. Can you please highlight the major problems commuter airlines now face under the current CRS situation? How do commuters differ from the major carriers in this regard?

Question. If the Committee were to consider legislation of some sort in an attempt to resolve these problems, how could we best address the commuter industry's concerns?

Question. Can you tell the committee how booking fees for your airline changed with implementation of the CAB rules last November?

Question. In your testimony, you argued that the booking fees should be made reasonable. How would you envision the Committee establishing a standard for rea-

sonableness, especially after the CAB declined to do so, given the size of the undertaking?

AIR MIDWEST,
Wichita, KS, March 29, 1985.

Hon. ERNEST F. HOLLINGS,
U.S. Senate, Committee on Commerce, Science and Transportation, Washington, DC.

DEAR SENATOR HOLLINGS: I appreciate the opportunity to respond to our request for additional information on the CRS rules presently in effect.

As to the reference made to Don May's statement that the situation is worse now than it was before, as far as Air Midwest is concerned, I think it may be true. I'm not sure the solution would be repealing of those rules, however.

Your second question related to the major problems the commuter airlines face under the current CRS situation. I'm enclosing a letter submitted to Senator Kassebaum prior to receiving our request where I have outlined what I see as the major problems created by the CRS non-biased priority guidelines. As long as interline connections are the last priority, short-haul feeders will never have CRS representation that is fair. The major carriers, with their long-haul operations, will always take up the first several screens of information with their direct and online connections regardless of sequacious routings and extended ground times.

If the Committee were to consider legislation to resolve these problems it would, I think, require the establishment of priorities based on total trip time rather than whether or not a person's changing airplanes on airlines.

As to the changes that are now being incurred by Air Midwest by the CRS vendors, we are now paying between $60,000 and $100,000 per month that we were not paying before November. One of the problems I referred to in my testimony was the fact that 30% of the bookings we paid for never materialized as passengers.

As to establishing a reasonable fee, I think it would be very difficult but a good step forward would be to charge for passengers carried rather than bookings made for passengers that never show.

I appreciate very much the opportunity to expand on my testimony.

Sincerely,

GARY M. ADAMSON, *President.*

AIR MIDWEST,
Wichita, KS, March 24, 1985.

Senator NANCY L. KASSEBAUM,
302 Russell Senate Office Building,
Washington, DC.

DEAR SENATOR KASSEBAUM: I want to express my sincere appreciation to you for conducting the hearing on the CRS issues last week. There were a lot of disclosures made and a lot of misinformation passed along from our point of view but all in all I think it went very well. I'm also very grateful to you for your attempt to get the bias second screen display eliminated from the system.

I'm sorry there was not more time to expand on the points I was trying to make about the way that the unbiased priorities used by the CRS vendors is, in fact, biased against the regional carriers. It would not be so difficult to accept if we were not being charged top dollar for unbiased representation. It seems to me that total trip time (or flight or flights departing after the requested departure time and arriving earliest) should be the highest priority in listing an unbiased service availability. The United Apollo interpretation of unbiased displays considers: first—any nonstop service, second—any direct service with one or two stops, third—online connections, and last if they have not booked the service off the screens showing any of the other categories they may show an interline connection. Below is an example that we have (of course, there are hundreds of similar examples available but with a limited postal budget I'm just showing you this request as a representative example). In a request for availability from Des Moines to Los Angeles departing at 7:00 a.m., Air Midwest flight #151 from Des Moines to Kansas City connecting with TWA flight #75 to Los Angeles is not displayed in the first nine screens. Although the first three flights displayed are direct flights, the Air Midwest connection over Kansas City left 15 minutes after the first direct flight left Des Moines and arrived five minutes earlier. There were only two direct flights which are quicker than the Air Midwest routing with no other connecting flight having a lower total trip time. If this were an isolated situation I wouldn't be concerned but it is the standard "unbiased" rule used by the vendors. We are being forced to pay for unbiased representation and I don't see how anyone could say we are receiving it.

Thanks again for your petition on the second screen. I appreciate any help you can offer on the bias against the regeional carriers.

Sincerely,

GARY M. ADAMSON, *President.*

Original request was for availability at 7:00 a.m. on March 1985.

	Airline	Routing	Departure	Arrival	Total trip time	Stops
Screen #1:						
1	HP31	DSMLAX	7:10 a	10:25 a	5:15	2
2	FL663	DSMLAX	10:30 a	1:22 p	3:52	1
3	HP63	DSMLAX	3:20 p	6:00 p	4:40	1
4	RC948	DSMMP	6:50 a	7:50 a	5:10	0
5	RC301	MSPLAX	9:25 a	11:00 a	.....	0
6	UA455	DSMDEN	7:55 a	8:34 a	5:30	0
7	UA193	DENLAX	10:10 a	11:25 a	.....	0

Unable to get ZV/TW connection by doing A*.
After nine screens the displays began showing alternate airports to LAX.
Forced connection shows on lines 1 and 2 of first screen:

ZV151	DSMMCI	7:25 a	8:10 a	 0
TW75	MCILAX	9:00 a	10:20 a	 0

Total elapsed time: 4 hours, 55 minutes.
A ICTHRL.
Response: CK OAG OR CONNECTIONS.
AA has flight #387 that operates ICTDFWHRL.

Senator KASSEBAUM. Thank you very much.

Mr. COWARD. Thank you, Senator. I will try to be as brief and succinct as I can be.

Senator KASSEBAUM. Let me just say, and I apologize, but President Reagan is meeting with the Republicans right now in the policy lunch, and I am going to have to perhaps move along a little faster than I would have liked to. I hope you will not consider it rude, but President Reagan also feels very strongly that all the Republican Senators should be there. So my apologies, and I just want to say that if I have to sort of move this along, that will be why.

Mr. COWARD. OK, then let me be real brief.

Senator KASSEBAUM. Thank you.

Mr. COWARD. To one outside the industry this may all seem very esoteric and arcane, so let me try to be as succinct as I can be.

The airline industry today is the world's largest video game. The display in a computer is far more important than the service offered. That is the reality. Your testimony 2 years ago made it clear that if you are not on the top of the first screen, you are in real trouble.

All of the bias you have heard about this morning is intended to put the host airline at the top of the first page. The reason there is a secondary display is solely because it is programmed—as Mark Marro showed you—to put a specific carrier at the top. Our airlines are the victims. Contrary to the national airlines who have

testified today, most of whom had an opportunity at one point to get into or build such a system in the past and chose not to, Regionals and commuters never had that opportunity, nor are we ever going to, because none of us is strong enough to make the kind of capital investment we are talking about. None of us market outside of our immediate areas.

As a result, 30 airlines in our segment of the industry went bellyup in 1984. In the first 80 days of 1985, 6 have already gone out. That pace will accelerate. The reason is that our service is not being shown to the public. The use of the secondary or bias display has absolutely no relationship in time and space to public policy. It is a conspicuous and egregious attempt to promote a product that otherwise is inferior and would not show up on the first page.

So the rationales that we have heard this morning about the travel agents wanting this and so forth are nonsense. The only incentive for going to the second screen is whatever bonuses are being proferred to the travel agencies by the carriers, and I think you had some pretty stunning testimony from Northwest about that this morning.

The reality is that unless you address bias itself, you will do no good. Divestiture is useless. The minute that you cause divestiture to occur, the major airlines will contract with third parties to display their information exclusively, and part of that contract will be a biased display offering. The carriers will then go back to the travel agencies and say, we want you to use X, Y, Z's product, and these are the incentives we will give you. The status quo will remain unaffected.

Divestiture is therefore absolutely no response to the issue. There is no way to get around confronting bias. You either go to an objective criteria and a first-screen-only limitation, or you forget dealing with the issue. It is that simple.

Senator KASSEBAUM. Let me just ask you, can that be done given the present structure?

Mr. COWARD. Well, coming into the room this morning I sincerely believed so. The testimony of the DOT this morning made it pretty clear that their building is hermetically sealed against reality and there may be an educational process that has to go on there. But taking it as a given that some motivation can be applied at DOT to look at this issue seriously if we got rid of the second screens, which I believe your persuasive powers here today could cause to happen quickly or certainly should, we would be making big progress.

DOT should then be requested, as our position paper says, to go back and look very carefully at whether the current criteria on the first display are adequate and are being fairly applied. If they find, as we believe they would, that they are not, then they should tighten the criteria to reduce abuse. Today even on nonbiased displays, there are things like funnel flights. If you pull up the Official Airline Guide tonight, you will find that there are nine airplanes with the same flight number from nine different cities that become one airplane at JFK to go across the Atlantic. That is considered a single plane service on the same plane from nine different cities and therefore sets a preferential display, even though it is a clear attempt to provide false information.

The fact of the matter is that very serious games are being played. The regional airline industry, which was intended to deal with a substantial part of the responsibility of deregulation, is simply getting hammered, and we are now in a position of either getting a common code, and lining up with major airlines, or going out of business. It is just that simple.

Senator KASSEBAUM. Thank you very much. I do think you have made a very important testimony, all three of you, to the importance of this for the regional airlines and the interline connection, and where there seems now to be a growing trend of course for the major airlines to own their own regional, which can be fed in in a significant and, quote, I suppose "biased" way on these particular systems. And I think that this is a concern if we are to have a strong and healthy regional service.

Mr. COWARD. Please, address bias and not ownership. That is the issue.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR HOLLINGS AND THE ANSWERS

Question. In his testimony, Republic Airlines' President Daniel May stated that the situation today, under the CAB rules, is worse than before they took effect. Do you agree? If so, do you think we should consider repealing those rules, as was suggested by Mr. Smith of the Competitive Enterprise Institute?

Question. Can you please highlight the major problems commuter airlines now face under the current CRS situation? How do commuters differ from the major carriers in this regard?

Question. If the Committee were to consider legislation of some sort in an attempt to resolve these problems, how could we best address the commuter industry's concerns?

Question. Can you tell the Committee how booking fees for your airline changed with implementation of the CAB rules last November?

Question. In your testimony, you argued that the booking fees should be made reasonable. How would you envision the Committee establishing a standard for reasonableness, especially after the CAB declined to do so, given the size of the undertaking?

Answers. With respect to the position of Republic Airlines, our perception would be that computer displays today are different, but no better or worse than they were prior to the November 14, 1984, effective date of the CAB decision. Accordingly, specific carriers whose service has been prejudiced by the new displays feel outraged, and those whose service has been promoted feel fortunate. On an overall basis, it is apparent that the current CAB display rules lack specific guidelines such as time of departure, elapsed time, and other objective criteria. Further, as there is no enforcement activity being undertaken by the Department of Transportation under Section 411, carriers are routinely abusing even the casual understandings of fair play by a variety of techniques. The effect of these charades is to enhance the display of inferior service, generally to the detriment of commuter carriers.

An example of the kinds of abuses that are occurring is what have come to be known as "funnel flights". In an attempt to improve the display in a variety of markets, carriers are listing the same flight number on different aircraft originating in different cities, connecting to a single, wide bodied aircraft at a designated hub. By this means, they are showing one-stop, same-plane service from several markets simultaneously when, in fact, the passenger is required to change aircraft at a hub.

In confronting our current circumstances, commuters are generally prejudiced in displays and overwhelmed by costs. As no commuter carrier is a CRS vendor, there is little if any control a commuter can effect in its display short of aligning with a major carrier. Further, the imposition of a uniform cost of display in the face of vastly different average ticket prices imposes a very substantial penalty on commuter carriers as a percentage of cost of operations.

I believe that the areas of concern for proposed legislation should be in tighter control of the algorithms of presentation, with specific objective criteria required. Secondary displays should be abolished by statute, and not merely by agreement.

And finally, a two-tier pricing system designed to take into account the desperate average ticket price of carriers should be provided, with a lower cost being imposed on carriers with limited seat miles in their inventory.

With respect to current costs, I can report that our CRS costs moved from $7,000 a month to $36,000 a month on November 14, 1984. This represents a very significant incremental cost which we are unable to pass to the consumer due to the ability of jet carriers in our market to absorb the cost as a smaller percentage of their average tickets. I would reiterate that a two-tier or multi-tiered fee structure be constructed based on seat mile availability so that a closer pro-ration of costs can be achieved.

Senator KASSEBAUM. Thank you very much. I appreciate it.

Mr. Smith, president, Competitive Enterprise Institute. If you will forgive me, Mr. Smith, let me say that if we could make your testimony a matter of record, I would very much appreciate it if you could just take a few moments to sort of briefly explain the points that you would like to make. I would appreciate it, and your full testimony will then be made a matter of record.

STATEMENT OF FRED SMITH, JR., PRESIDENT, COMPETITIVE ENTERPRISE INSTITUTE, WASHINGTON, DC

Mr. SMITH. I have been cutting as you talked, Senator.

I am Fred Smith. president of the Competitive Enterprise Institute. CEI is a promarket public interest group formed to bring a free-enterprise perspective to the public policy debate. From what we have been hearing here today, that perspective is certainly needed.

I hope to persuade you that the regulations already imposed on the CRS's were anticompetitive and should be repealed, and that you should certainly not further regulate this sector of the airline industry. My testimony is lengthy, so I will highlight it.

You have heard a lot about the development of the CRS, and its value. Perhaps, however, it has not been so clear that the travel agents and the air travelers have played a major role in guiding that development. Most CRS systems list almost all airlines, and several CRS's, we have just been told today, have the ability to search out the least-cost fares, the bargain finder enhancement that Mr. Crandall mentioned earlier. Their design features benefit primarily the traveler and travel agent—not the CRS vendor.

In brief, the CRS evolved in response to consumer demand. They were not forced on anyone by the computer reservation system vendors.

The CRS regulations were probably enacted because computers remain somewhat strange, to most Americans. I may be charitable, but I believe that the CAB would never have made such a reregulation mistake had the comparative advantages that triggered its investigations resulted from better planes or lower cost flight crews rather than better information processing systems.

Let me suggest two common examples to help clarify this issue. I grew up in the South where we had Coke machines. Coke machines were marketing tools to promote Cokes. They were very biased displays. The Coca Cola label was prominently displayed and the machine gave little preference to competing brands. In fact, they excluded some brands. At least I never noticed. Pepsi's being stocked in Coke machines. In fact, I guess I was in college before I met a Pepsi-Cola—or for that matter—a Republican.

Senator KASSEBAUM. Mr. Smith, if I may interrupt for a moment please, I would ask that Chuck Doyle be allowed to sit in for me at this point. Thank you very much. I appreciate your understanding.

Mr. SMITH. Sure. Tell the President hello.

I think the Coke example is very relevant. Coca Cola was dominant in large areas of the country. They certainly had market power in the cola drink market, if you believe cola drinks are the relevant market, and they still do today. Nonetheless, the Coke machines were also forced by market forces to carry other brands. As in the CRS case, the store owners required that they stock other brands.

Another example that raises these issues is the example of supermarket shelfing policy. The supermarket innovation raised many of the same fears that you are hearing here today. The big chains would dominate food distribution channels; monopolies would drive independent brands from the market. Many smaller independent stores in those early days made exactly the same complaints you have heard here today from the smaller airlines.

Well, of course none of those fears have actually materialized. Supermarkets stock what consumers want. Of course, store managers do try to promote their own brands. Private labels are often placed on the preferred eye level shelves in the stores. Private label brands often receive as much shelf space as the leading national brand, and the real bargains, the generic brands in unlabeled packages, are often segregated away on back aisles.

All of these practices would be evidence of bias if they occurred in a computer reservation system. Had there been a civil food board, then fears of bias might well have led to the kind of regulations over supermarkets we now have over CRS. Fortunately, there was not, and thus we enjoy today an efficient food distribution system.

The point is that profit-maximizing control of advertising and shelfing policies is completely compatible with consumer welfare.

But even if the CRS vendors were to over-prefer their products, there are many options available to the travel agents, and the participating carriers. First, travel agents can search longer. However, as we noted earlier, the travel agents control the evolution of these systems. If the bias, if preferential display, becomes excessive, if the travel agent must spend too much time searching for the products wanted by his customers, he will complain and the system will be modified or the agent will switch to another more accommodating system. Travel agents forced CRS to develop as it has.

However, the have-not complaining airlines we have heard from today, also have a wide range of options. In the first place, they can improve the quality of their product. They can lower their fares or improve convenience and advertise those changes to the consuming public, to the air traveler, and force their product onto the computer reservation system shelves. That is the method that has been taken traditionally by all new food products. You are not given a position on a supermarket shelf, you earn it.

The non-CRS carrier can also offer higher commissions to the travel agents, and thus persuade the travel agents to incur the higher search costs. And as Senator Exon recommended earlier today, these carriers could sell some airplanes and build their own

CRS's—if they really believe their own propaganda on the profitability of CRS. Certainly the rate of return talked about today would justify that investment and attract capital in any market.

The problem with all these options is they cost money. It will be cheaper for the complainers, if Congress favors their cause.

Let me turn to the problems already created by the current computer reservation system regulations. First, these rules increase search costs. The current regulations assume you should organize your kitchen cabinets as if you did not know which items you were most likely to use. That is foolish.

The coffee cups are at the front of my kitchen cabinet because I drink coffee more often. I do not drink coffee more often because the cups are in the front of the cabinet. Apollo and Sabre are popular computerized reservation systems because United and American are popular airlines. Consumers prefer some products over others, and it is useful to have the more convenient products, those more purchased products, more available. That was the major reason why the earlier CRS systems all were "biased" and we are all worse off now that this convenience has been eliminated

The divestiture idea is particularly foolish. Divestiture is based on the old antitrust logic that views all vertically integrated firms with suspicion. Such antitrustors adopt a kind of Texas chainsaw concept of competition, firms look better if they are cut up into nice little pieces. Deregulation is valuable, and we should continue that course, but we should not dismember any firm. Our latest experience with antitrust induced divestiture should warn us of the costs of such ideology. Our telephone systems used to answer more reliably, we were all able to order a new telephone and have it installed within a few days, and we paid everything in one bill. Do we really want to ensure the problems brought on by the telephone breakup are repeated for a now functioning computer reservations system world?

My testimony includes several recommendations that I would urge the committee to consider. At minimum, you should repeal the current regulations and eliminate the DOT's regulatory powers over computer reservation systems. You should be encouraging have-not carriers to seek the approval of customers, the air travelers, not their Senators. The real bias in the current rules is that they encourage airlines to play politics. Bias was never more than a rhetorical device used to justify the imposition of political penalties on the CRS vendors to offset their comparative advantage in marketing.

The special interest pleadings you have been hearing should be rejected. The major anticonsumer threat to the air travel system stems from Government regulation, direction, management, and control of key sectors of the air travel industry. Consumers would be better served were you to address that problem, not further restrict competition and consumer choice.

Thank you.

Mr. DOYLE. Thank you, Mr. Smith. I just have two real brief questions.

The first is: If I were a consumer and I wanted to shop for the lowest priced soda pop, it would be a relatively easy thing to do to go to the store and look at the shelves, even if I have to look higher

in one place than in another place to find out which was the cheapest soda pop. Is it similarly easy for a consumer to sort through what we now have heard today are the 7 million different fare options to pick the easiest one? Are those two similar tasks?

Mr. SMITH. They are similar tasks. Of course there is more variety in the question of airlines, and that is why consumer are tending to delegate that search role to the travel agent. The travel agent plays the search role, just like the realtor helps locate a house, and other groups help find other specialized products.

Incidentally, I rarely use a travel agent for regular flights, so I was surprised that their role is growing very rapidly. But the very fact that the travel agents are commanding a larger share of the business suggests that as deregulation expands the range of choice, consumers respond by turning over that search role to the travel agents, and the travel agents are using the CRS system to help them provide that service. They are obviously doing a good job because they are getting more business.

Mr. DOYLE. What if you put one brand of soda pop in the back room and you have to ask for it specifically by brand?

Mr. SMITH. As a matter of fact, that is pretty much what the supermarkets do with the generic brands. They segregate those low bargain brands to a specialized row, and many stores do not even carry generic brands. The question of what should be on the shelves and where it should be is very similar. There are 7 million products out there, but they are not shown at any one time, supermarkets have 15,000 or more products. As individuals, we can consider only a few products at any one time. Would we want to have all 7 million offerings on one screen? The CRS displays I have seen have eight flights listed. Is that biased? Should they have listed 9 or 12? (We could always mandate smaller type.) How much information has to be presented? How much of the "air space landscape" do we have to see at one time in order to satisfy the bias problem?

Mr. DOYLE. The question is how you select those.

Mr. SMITH. We should select them the same way we select supermarket products. We allow the supermarket manager to arrange the product and we make a choice. We should allow profit motive to operate in the consumer benefit.

Mr. DOYLE. Do you have any evidence, other than the theoretical basis that you have presented today, that travel agents actually go to the airlines and say, I have a problem with Apollo, I like to book on Northwest because of its product presence in this market and it takes me 32 screens to get down to the first Northwest flight of any interest to me? Do you have any evidence that they actually go to the airlines and do that?

Mr. SMITH. We have had evidence of that fact presented earlier today. Two of the major providers, supposedly dominant, CRS systems in the country, are falling all over themselves trying to make sure that the other does not get a leg up and prove more attractive to travel agents. If one CRS vendor makes it easier to search for special deals (low cost flights, for example), then the other CRS vendors will follow.

Indeed, as I make clear in the testimony, one of the problems the bias rules are creating is that a lot of those specialized search algo-

rithms are being discouraged. For example, for whatever reason, consumers in some region might prefer Northwest or some other airline not just based on some objective criteria, cost, flight time, etc, but because the people there like the airline. It is a hometown airline or something. A specialized search routine that gave preference, that biased the system to prefer Northwest would be illegal under the current guidelines even though it might well be more convenient to all.

We are making it more difficult to provide a consumer services in this industry.

[The statement follows:]

STATEMENT OF FRED L. SMITH, JR., PRESIDENT, COMPETITIVE ENTERPRISE INSTITUTE

INTRODUCTION

My name is Fred L. Smith, Jr. and I am President of the Competitive Enterprise Institute (CEI). CEI is a pro-market public interest group created to inform the policy debate. I appreciate being requested to testify here today to discuss the alleged anticompetitive implications of the computerized reservation system (CRS) innovation. I comment as a transportation economist familiar with the anticonsumer impacts of both traditional and antitrust regulation. Most recently, I authored the Department of Tranportation chapter in Mandate II, the recent policy volume prepared by the Heritage Foundation. I also worked with the editors of Regulation magazine, a publication of the American Enterprise Institute, on a piece dealing with the CRS issue that appeared in the January/February issue ("Airline Reservation Systems: Curse of the Mummy's Tomb").

My testimony today seeks to dispell some of the confusion that surrounds this issue. I hope to convince you that divesture would lead to the same "advantages" that we are now experiencing in the telecommunications industry, and that, in fact, you should repeal the current CRS regulations. The CAB, I believe, made a serious mistake in deciding to impose new regulations on the CRS segment of the airline industry and that mistake was reinforced when these rules were transferred to the Department of Transportation (the DOT). The practices that evolved in the computerized reservation sector of the air travel business were inherently pro-competitive and pro-consumer and should never have been attacked. There remain many factors which limit competition in the airline industry. These include the various laws limiting the import and export of air travel services, the Federal Aviation Administration's (the FAA) monopoly control of commercial airspace and its recent exercise of that authority to regulate airline scheduling decisions, and the FAA's restrictions on local airport pricing policies which inhibits rational allocation of scarce landing slots. You now have the opportunity to review these restrictions, and move toward a fully competitive air travel industry. You should do so.

My testimony is organized into five sections: a discussion of the evolution of the CRS technology and the regulations under question today, a discussion of the confusion over the nature of competition that led to these regulations, a discussion of the wide range of options that were available to the various parties to offset the marketing advantages of the CRS vendors, a discussion of the consequences of allowing the current CRS rules to continue, and a concluding section.

EVOLUTION OF THE CURRENT COMPUTERIZED RESERVATION SYSTEM REGULATIONS

The evolution of the computerized reservation systems and the reasons why the CAB elected to regulate their use are discussed in this section. I argue that the CRS development was fully compatible with competition, that the market was responding to the situation in a fully satisfactory way, and that the current CRS regulations increase the costs of air travel needlessly.

Computerized reservation systems (CRSs) are computerized data bases with various software enhancements to allow that data base to be used efficiently. CRS were initially developed as internal management tools of airlines. As these systems became more reliable and the labor costs of telephone-based reservation increased, some airlines began to market their systems to travel agencies. (Cooperative efforts to create a single, uniform system to achieve this goal had been thwarted by fears of prosecution under the antitrust regulatory laws.) To gain market acceptance of

their products, the airlines offered CRS systems at low rates and were quick to modify their systems to meet travel agency demands.

The CRS innovation dramatically lowered the marketing cost component of air travel. One estimate mentioned in the CAB proceedings suggested that the introduction of CRS increased productivity in one travel agency by almost 40 percent. The introduction of CRS like that of the jet engine and the non-union flight crews created competitive pressures for their airlines. Most airlines elected initially to "buy in" by paying a fee for all bookings made via a CRS. Each airline negotiated with one or more of the CRS vendors to have its services sold through that outlet. The impetus for the introduction of CRS was to gain a marketing advantage (they wanted to reduce the costs of selling their flights); thus, these systems were not promoted vigorously in areas where the CRS vendor had no major market share. As a result, the efficiency advantages of these systems were not immediately available in all areas. One result was that "have not" airlines negotiated with the CRS vendors to share (or sometimes pay fully) the costs of marketing these systems in their geographic regions. By entering into a "co-host" arrangement with the CRS vendor, the regional airline shared in the economic efficiencies offered by the CRS innovation.

CRS systems are continually improving. Over the last decade, information displays became more accurate, updates more timely, services more comprehensive and so forth. Moreover, many of these improvements are the result of competitive pressures among CRS vendors to meet the demand of their customers, the travel agencies. The earliest example was the demand by travel agents that CRS vendors allow competing airlines to "piggy back" on the system. Market pressures forced the CRS technology to list all flights. Similar travel-agency oriented enhancements allow an agency to develop customer demand profiles and thus provide better service. A recent dramatic example of the power of the travel agencies to mold the course of CRS development is the recent introduction of an algorithm to search for the least cost flight. This feature will discover information "adverse" to the CRS-vendor.

The agreements between the CRS vendors and the other participating carriers were voluntary. All airlines were free to market their tickets in the old way and some elected to do just that. However, most found it more advantageous to buy into the new technology. However, having gained this advantage, the "have not" airlines began to view the preferential marketing advantages enjoyed by the CRS vendor as "unfair" and appealed to the CAB and Congress for a better deal.

The CAB took these claims seriously labeling the CRS vendors preferential listings of their own flights as "bias" and introduced a set of rules to force more "neutral" displays and to limit a range of associated practices. Initially, the CAB rules seemed ideal to the "have not" carriers. They would have the marketing advantages of a "neutral" CRS and not have to pay for it. However, since the CBA rules abrogated all existing contracts, and reduced the marketing advantages enjoyed by the CRS vendor, the CRS vendors moved to make up their losses by raising the booking charges to the participating carriers. The "have nots" have protested these higher rates and are now back in Congress asking again for special treatment. They want "equal" billing, but want the CRS developers to provide their services "fairly." Some even argue that mere ownership of a CRS by a competitor constitutes unfair competition and should be disallowed. This group would have Congress divest the airlines of their CRS divisions.

The CRS regulations were adopted in a highly politicized environment. Deregulation changed the nature of the air travel industry and found the various airlines in rather different situations. Some airlines had favorable labor agreements, others modern equipment, others extensive route structures, and still others attractive marketing devices such as the CRS systems. Only the latter, however, was singled out for scrutiny. We should not be surprised that some firms would endorse expanded government regulation that they believe will favor their cause. It is, however, somewhat surprising that a supposedly free-market Civil Aeronautics Board would prove so receptive to such reregulation arguments.

Part of the answer may lie in the fact that computers remain somewhat of a mystery to most Americans. Had this issue involved such more prosaic items as airplanes or pilots, the CAB might have remained truer to its principles. Certainly airlines that refuse to purchase more efficient equipment or that allow their labor scales to remain in the stratosphere are likely to lose market share—nonetheless, the decision of whether to make such changes is suitably left to the individual firm. What is different about the CRS issue?

To clarify some of the mystery, let me explore two analogous situations: first, the introduction of machines to dispense soft drinks and, second, the shelving policies of supermarkets.

Soft drink machines

Based on non-extensive research, the first soft drink machine seems to have been produced in 1929 by the Coca-Cola company. The objective was "to place a Coke within the reach of every American." The firm believed that making its product more readily available and more attractive would increase its profits. Coke salemen went out and installed the machines in many locations at various terms. As many of you may have noticed, most soft drink machines rather aggressively promote their own brands. The machine itself constitutes a major point-of-sale advertising device and the distributors generally grant their product top billing (on some machines, the bottons for the "preferred" product are considerably larger).

Since stores didn't have unlimited floor space and their customers insisted on buying other soft drinks at least some of the time, the store owners insisted that some non-Coke products be stocked. Thus, some non-innovating soft drink firms (and some firms whose size was too small to permit them to develop and distribute a proprietary machine) were able to "pigge-back" and, thus, also improve their marketing situation. The machine distributor maintained preferential policies, but the market forced more comprehensive stocking policies. Also, their was a natural tendency for a store owner to install first a machine carrying that product preferred by most of his customers. Thus, Coke machines dominated in some regions; Pepsi machines in others.

A whole range of other consumer products benefitted from similar marketing innovations—cigarette distributors introduced special display racks and machines, as did candy and bakery product distributors. All of these innovations made marketing more efficient by providing information about the product's availability. In all these areas, profit-oriented innovators improved the overall economics of soft drink distribution and gained a competitive advantage in the process.

SUPERMARKET SHELVING POLICIES

The modern supermarket was an extremely important marketing innovation in the food distribution sector. Indeed, in many ways, that innovation triggered many of the fears that prompt this hearing: "big supermarket chains" would capture the channels of distribution, small food producers would be "locked out" of the marketplace, smaller stores would be eliminated, and the United States would find itself "monopolized" by a giant supermarket chain spanning America from the Atlantic to the Pacific. None of these fears, you will all realize, have come to pass. The marketplace has proved far more selfregulating than many in Congress and the public anticipated. Supermarkets have flourished (and A&P did not become the dominant firm, after all), but convenience stores of various sorts and a wide variety of specialty stores have also flourished.

One aspect of this industry is of specific relevance to the CRS issue—the policies used by supermarkets to allocate shelf space. Which items get the preferred eye-level shelves? Which are regulated to the higher or lower shelves? This question becomes more relevant when it is realized that these large stores not only "control"-shelf space, they actually produce private label brands which compete for shelf space with independent brands. My insights on this are based on no extensive research; however, I did my graduate work in operations research and questions of this sort are the bread and butter of that branch of applied economics.

In establishing shelving policies, firms seek to maximize profits. Not an easy thing to achieve, of course, but they try. That means they consider the expected profitability of the national brand vs. that of their own product under various shelving policies. Supermarket folklore suggests that some firms always grant their own brands preferential shelf space—typically eye level display room. Other firms apparently assign store brands the same shelf footage given the leading national brand. Still others always stock their brand next to a high-price brand to dramatize the price differential. Incidentally, the real "bargain" products—the generic unlabled brands—are often segregated to some separate isle. A Civil Food Board might well have found in all this behavior strong reasons for regulation—"bias" certainly seems rampant.

But before leaping to such policy conclusions, we might note that supermarket brands are far from driving the non-supermarket produced products from the shelves. Indeed, supermarkets produce only a very small percent of all brands stocked (the modern supermarket may stock upwards of 15,000 products of which perhaps 400 will be store brands). Supermarkets are interested in making money and they make more money by allowing their shelves to be used by other and in some cases competing products.

Shelving policies reflect many factors. The first and most important factor in determining whether or not a product will receive shelf space—and, if so, how prominent that space will be—is consumer demand. The manager will vary shelf space at the margin to reflect other factors and will vary shelf space for new offerings. In effect, the manager balances current consumer demands against those he would prefer. Stores stock popular products or run the risk of losing customers to stores that do; while smaller or new entry brands must pay a premium to gain shelf space. The independent brand manager will negotiate with the store manager to demonstrate (via market research results, via commitments to promotional advertising campaigns, via coupons and special point-of-sale display devices) that the new product will provide a better return than the product it will displace (most new products in a constrained supermarket displace some existing product). He may also offer the store manager special discounts (a "free"case for every ten cases sold or simply a lower introductory price. The store manager must make such decisions thousands of times a year.

Again the results of this process has been a highly efficient food distribution system which meets current consumer demand while continually seaching for new profit opportunities.

There are several lessons to be learned from these examples. Innovations in areas where the innovator provides a service to a firm with which it also competes are common in any competitive economy. The disciplining force that keeps these arrangements from becoming anticompetitive arises, not from any politically motivated regulatory agency, but rather the competitive pressures of the market. Firms that seek to "manipulate" consumers via "biased" offering face major problems. The innovator, of course, displays those choices that consumers have already endorsed, but also seeks to promote those products that would increase his profits. The experiences in the soft drink and supermarket shelving areas provides evidence that the market is not a flimsy institution readily captured by strong private forces, but rather a robust and vigorous institution that is well disciplined by competitive forces.

THE CURRENT CRS REGULATIONS AND THE NATURE OF COMPETITION

The rules that were finally promulgated by the CAB in its closing days and have since been transferred to the Department of Transportation require that "bias" (i.e. preferential display practices) be eliminated, that a whole range of other business practices be eliminated and that pricing be "non-discriminatory." These rules were introduced, we are told, to ensure competition in the air travel industry; but terms such as "bias" are emotional, not discriptive. They prejudge the value of what should be a question for determination: whether the observed practice promotes or retards consumer welfare.

There is little substance to the "bias" issue. The decision to produce and market the computerized reservation systems was a competitive innovation designed to increase profits and gain market share. To define such innovations as anti-competitive, as threatening to competition, betrays a total lack of understanding of what markets are all about. This confusion arises from several sources. First, some have interpreted the airline industry in extremely narrow terms as if it consisted of merely flying people around the nation with the travel agents and marketing aspects of the industry somehow irrelevant. In fact, in the air travel, as in any other market, the key is bringing the plans of buyers and sellers into agreement. Innovations which lower the costs of searching out for the relevant information to bring about this agreement are extremely important.

Yet, the CAB throughout its proceedings acted as if marketing or information acquisition costs are irrelevant. After all, it might be argued, in the "perfectly competitive" world everybody knows everything, all prices and product quality are identical and thus there would be no role for travel agents or CRS. The CRS rules stem from this basic misunderstanding of the nature of the competitive process. The "perfectly competitive" standard implicit in the CRS rule proceedings sees the air travel market as in equilibrium. No one offers superior or inferior air travel services, there are no pricing or other innovations, and all airlines share the same cost efficiencies. In this "perfectly competitive" market every producer is the same, no one can raise their prices or charge different amounts to different customers. In such a "perfectly competitive" world, buyers and sellers meet and reach agreement at zero cost. Since the whole problem addressed by the CRS technology does not exist in the normative model used by the Justice and CAB regulators, we should not be surprised to find that they found it troublesome.

Indeed, this is the basic problem with the whole area of antitrust regulation. Businessmen are profit oriented and thus seek to gain market power by differentiating their products, advertising it aggressively, and competing vigorously with other firms offering similar products. The goal of all this is to gain a competitive advantage over one's competitors. Yet, the antitrust regulatory laws regard all these activities as worrisome. The CAB proceedings continually cite, as evidence of monopoly power, facts suggesting that some firm has gained a competitive advantage over another and is thus able to charge higher prices and earn a higher rate of return. Evidence of successful competition is viewed as anticompetitive!

For example, at one point in the proceedings, the observation is made that some CRS vendors charge different prices to different consumers. In equilibrium (the "perfect competitive" world again), this would be impossible, so the innovator has attained "monopoly power" and thus must be regulated. This whole logic bears close attention, since if taken seriously, such policies would undermine the incentives needed for innovation. After all, if the reason we need to regulate the computerized reservation systems is that they have become "essential" and thus a threat to competition, aren't we encouraging inefficiency? Indeed, we seem to be repeating the ancient error that led to the breakup of Alcoa. Efficiency becomes a threat to competition. A firm wishing to avoid antitrust problems, had best not be too efficient at reducing costs or meeting consumer demands. Those favoring this view of competition are like the physicist who—able to prove the laws of motion only in a vacuum—devotes the rest of his life to denuding the earth of air.

Competition in the real world is a hurly burly, robust system in which a firm must work every day to persuade its customers to purchase its products. "Market power" is nothing more than the all too ephemeral result of gaining a quality or cost advantage over a competitor. These gains create the incentives for other firms to copy the innovation or to find some other more creative way of achieving similar or superior results. "Monopoly profits" are earned and must be renewed continuously by new innovations which lower costs or enhance quality. A competitive marketplace is vibrant, dynamic and includes many opportunities for transient entrepreneurial profit opportunities that soon fade as the other competitors adapt or by-pass the new offering or technique. The CRS innovation was a classic case in point—some firms lacking other advantages—promoted a system that became more and more useful.

NONREGULATORY OR MARKET RESPONSES TO "BIAS"

What would have happened had Congress and the CAB/DOJ regulators not rushed to intervene in the CRS area? Possibly nothing, after all, some of the airlines that protested had earlier requested one or more of the CRS vendors to come into their operating regions and some had underwritten the costs of these expansions. To now accuse the CRS vendors of exploitation suggests a degree of disingenuity rarely found even in the business community.

Moreover, the travel agents, participating carriers, and even the air traveler had several options to offset any problem that might arise. The travel agency had several options. First, an agent can simply spend more time searching for the preferred flight. A salesman generally has an initial objective, but wishes above all to make a sale and will seek to match the customer with the product that suits his tastes. The agent can, of course, push some product on the consumer; but that may lose him future sales and damage his reputation in the travel market. Moreover, the travel agent has many other sources of information than the CRS screen—specialized publications, direct mailings, sales contacts, commission offerings and other information that can be used to override any preference in the system. Not all people purchase from AAA-AABCO even though it is "preferred" in the Yellow Pages. If customers consistently prefer flights not conveniently displayed, then the CRS vendor is likely to receive complaints. The travel agencies have and will discipline the design of CRS displays. Finally, the travel agency might consider installing two CRS systems and assign its customers to selected agents.

The "have not" airlines similarly have a very wide range of options they can employ to offset their comparative disadvantage in marketing. They can improve their quality, lower their fares, advertise more aggressively and otherwise improve their market share and thus force their product onto the CRS "shelves." Travel agents will take the time to seek out these products if the alternative is no sale. The "have not" airlines can also appeal directly to the travel agents by offering higher commissions, by focusing their sales efforts through non-CRS using travel agencies, by using a non-conventional ticketing arrangemnt, or by selective advertising to the travel agent via specialized publications and direct mail.

Of course, if the "have not" airlines believe their own propaganda and think that the CRS vendors are making a fortune on their CRS operations, then they would be well advised to sell a few airplanes and develop their own CRS system. There are several options. They might simply joint venture with one of the smaller CRS systems now in existence, although that option has been made more difficult now that long term contracts are forbidden and "bias" agreements aren't permitted. However, if the profits are indeed large, then even a short term agreement might be sensible. Alternatively, the "have nots" might joint venture with a non-airline CRS, or even with Apple or one of the other computer firms (the closed Apple production line would produce enough sets in one week to re-equip the whole industry), or with a major travel agency. "Have not" airlines might also buy preferred shelf space till they gained adequate "brand recognition."

Finally, the air traveler has many options. He can select a travel agency having sharing his preferences. He can shop around by making several trial bookings, or even book directly. Of course, all consumers are well advised to review their choices continually and act warily. In a complicated world in which consumers are well educated and very quick to loudly protest adverse selections, consumers are better protected than in the past; nonetheless, caveat emptor remains a wise and prudent rule.

THE CONSEQUENCES OF THE CRS RULES

Before any further reregulation of the airline industry is considered, we should consider the impacts of what has already taken place. This section briefly considers that aspect of the problem.

Increased costs

Current CRS rules increase the costs of marketing air travel services and thus the costs to the air traveler. CRS vendors can no longer preferentially list flights, and thus a travel agent must spend more time to search for a fare on those airlines that had been "preferred." Since a travel agency, in large part, makes its selection on the appropriate CRS because it expects to sell flights on that airline and, therefore, wishes to have information on that preference readily available, the "bias" rule confuses cause and effect. Like the earlier examples of soft drink machine placement and supermarket shelving policies, the first and most dominant criteria for gaining acceptance with the travel agents is to have gained success with consumers. Since search costs are not considered of consequence, the whole impact of the "no consumer preference" rule on search cost has been ignored.

The "anti-bias" rule is biased against efficiency and consumer welfare. It has the same logic as requiring that an individual arrange his kitchen cabinets without considering the frequency with which he expects to use the various items. The costs of this new rule are higher, now that the major airlines have implemented Frequent Flyer programs. An agent must spend more time searching out flights that are more likley to be requested or that he seeks to sell.

Non-discriminatory pricing rules discriminate

The CRS regulations also eliminate "discriminatory" pricing, i.e. pricing that reflects the value of service to the participating carriers. Now, the CAB was undoubtedly motivated to add this provision to help the "have not" carriers; however, it is likely to harm at least some of these firms. Firms may differ widely in various operating criteria. For example, an airlines may experience more "no shows" than the industry average. That firm gains less from a booking than will others. Such an airline might prefer a lower priced, but less preferential display profile. That strategy is denied to both the CRS vendor and the "have not" by the new rules. Moreover, price discrimination is often efficient. The only way that certain services may be possible is to allow pricing policies that reflect the greater benefits realized by some groups from having the service in the first place.

Inhibits innovation

The CRS rules also discourage a range of further enhancements to the CRS systems. Many of the options that are available to a new food brand are now denied to the new entry airline. An airline cannot buy display prominence—for example, a CRS vendor cannot sell a blinking, colored display feature which would allow a new entry airline to advertise its "ALL NEW NIGHTFLYER BARGAIN FARE WITH SPECIAL INTRODUCTORY COMMISSIONS." To the CAB/DOJ types, such preferential display constitute "bias" and is bad.

There are a range of other innovations that are discouraged by the inability of the CRS vendors to price differentiate and, therefore, earn entrepreneurial profits. For

example, CRS vendors might offer features that would allow each travel agency to create a search algorithm to display the "air travel landscape" of most interest to the average customers in that region, or, even better, to the customers of that travel agency. For example, as a phone call was received, the computer could identify the caller, reference that customer's past purchase record and format the display to look "further" in the directions dictated by that customer's past preferences. All this could make shopping for flights simpler, more efficient and more consumer oriented; however again the logic of the CAB rules is that such enhancements would emphasize some airlines over others and thus be "biased."

Some of the anti-innovation damage in the airline industry has already occured. No matter what is eventually decided on the bias question, Congress and the regulating authorities (still employed at the DOT and Justice) have demonstrated their willingness to nullify voluntary contracts within the airline industry. As a result, no one can be sure that future contracts will not also be canceled. Contracts, thus, become a less secure way of entering into joint ventures that would promote innovative activity and thus innovation is further discouraged. Indeed, the CAB's decision to abrogate existing CRS contracts creates problems similar to those arising from the tendency of third world politicians to expropriate property on a monetary whim. The incentive is to make fewer investments and to focus on short term, high profit projects. The CAB "taking" policy leads to many productive investments being ignored because of this political uncertainty.

Limiting contracts to five or fewer years between CRS vendors and their customers also reduces the ability of a firm to share the risks of developing a new CRS system with other airlines. One of the many innovations rendered thereby less likely would be a system that would display flight information reflecting the market shares of the preceding period. Such a system would continuously move those flights most preferred to the "front shelves." A variant would allow the agency to modify the display algorithm to weigh the profitability to the agency of the various flights. Either system would rely on carrier identities to select priorities, and would probably be banned under the current rules.

Dangerous content regulation precedent

Treating normal business practices as bias creates many problems, and is likely to create far more problems if these regulations establish a precedent for further content regulation of the electronic information industry. The information industry is an important growth sector, and we should not regulate it out of existence. Imagine, however, the difficulties if the electronic supermarket is not allowed to "bias" the flow of information. There are 18,000 products in the typical store and the average shopper spends some 40 minutes shopping—obviously, the normal shopper ignores most information. How can that be arranged if all information must be displayed in a "neutral," "objective" fashion? How do we translate to the electronic media the "blatant" efforts (flashing lights, end-of-aisle displays, special cents-off promotions, coupons, etc.) to persuade the harried shopper to consider our product? Must we force the electronic shopper to thumb through the mandatory label information or can he be allowed to ignore this material. Even so, must the electronic supermarket make this information available despite its being ignored by all or almost all viewers? What impact will such mandated service features have on the costs and consumer acceptance of electronic shopping services? The CAB rules have sobering implications for the future of the information industry.

Must competition face an "effects" test?

The CRS regulations created a strong presumption that any shifts in market share that cannot be explicitly justified on cost or quality grounds constitutes evidence of "indirect bias." That rule may be one of the most anticompetitive aspects of these new regulations. Certainly, the inclusion of the "indirect" term will tempt many firms to blame any business setback on the CRS providers and thus to make a political appeal. Do we really wish to redirect the energies and talents of our newer entry airlines away from the market and toward the DOT and Congress?

Precedents for further reregulation

The success of the "have nots" in gaining favorable action on the "bias" issue will undoubtedly encourage other airlines to undertake many other complaints about "unfair" competition. Pricing and interlining decisions will, of course, receive scrutiny. Decisions on hotel and rental car agencies may also be questioned in the future. Can an airline use its "market power" to list preferentially one hotel chain or rental car agency and thus "bias" the consumer against these downstream competitors? Will package deals linking hotel, rental cars and airlines be questioned?

The precedents for transportation reregulation proceed beyond the air travel sector. One of the promising developments in the deregulated trucking industry is the possibility of linking the computer planning models of manufacturing and trucking companies. Even a small improvement in the efficiency of matching empty trucks with profitable loads would be extremely important. Yet the CRS rules raise serious questions as to whether these brokerage services can be offered to other trucking firms for a fee, and if so, whether the provider would be required to list all available trucks in a "neutral" fashion. If the CRS precedent is observed, we may find that the smaller trucking firms will be denied any participation rights in such systems and thus suffer a competitive disadvantage.

Divestiture

The logical consequence of the thinking that motivated the CRS rules would be to require that the CRS function be assumed by a totally independent company. The antitrust regulators cannot readily understand a situation in which firms compete in one arena, while they cooperate in another. Moreover, the antitrust regulatory laws make every business practice illegal until, and unless, the staffs of the Justice and the Federal Trade Commission understand it. Innovative business practices are continually hampered by the lack of knowledge and business experiences of the bureaucrats manning these two agencies. Occasionally, as we have seen recently with the R&D bill, the costs of antitrust regulation become so obvious that Congress votes to deregulate a portion of the economy; however, we still have far to go in that direction. The prevailing wisdom remains that competition is so important that it cannot be left to the market. Since we have no theories guaranteeing that cooperating-competing firms will behave in the correct "static equilibrium" fashion, it becomes logical to eliminate the potential "conflict" by divestiture.

There is much to say about the theory that only segmented industries can be trusted to behave competitively (what might be called the Texas Chain Saw Model of Competition)—none of it positive. To date, only one non-integrated CRS system seems to have emerged and its market success has been limited. As with any information system, accuracy is paramount and that objective seems more likely to be attained if the developer is also a major information source. Moreover, additional information exchanges would be required if the CRS function moves outside the airline industry; thus, the costs of information acquisition, updating and verification are likely to increase. Finally, the firms now providing CRS services may elect to reintroduce their own proprietary systems and provide minimal support for any shared system. Divestiture might reduce the ability of the "have nots" to "piggy back" and raise the costs of the overall air travel marketing function.

Moreover, the logic of the divestiture approach is now being tested in another important area of the economy. The antitrust ideologues were extremely successful in breaking up the AT&T system and we are all experiencing the impacts of that decision. We should avoid taking the chain saw approach to this still well-functioning part of the airline industry.

CONCLUSION

Let me summarize by restating that, in my view, "bias" is simply a rhetorical device used to justify the imposition of political penalties on the CRS-vendors for their comparative advantage in marketing airline services. The situation is the same experienced in an earlier era when the CAB routinely restricted "cutthroat competition" by non-union, new-entry carriers. The major threat then, as now, to a competitive air travel industry serving all air travelers safely and efficiently is the ability of the losers to turn to the political arena to regain their market losses. The major carriers had no "right" to the air traffic they lost because of new-entry competition; nor do the "have not" airlines have any "right" to their current market shares. The fixed market quota concept of competition is inherently anti-competitive. Consumers are best served when all airlines are allowed full freedom to compete in all sectors of the air travel market—including the marketing sector—and retain whatever customers and profits their successes achieve. You should dismiss this policy issue and move on to more productive issues.

There are important steps you might take to improve the performance of the air travel industry. There remains much to do to fully deregulate this industry. As you are aware, the air travel industry includes three important sectors: the airlines (including the CRS activity), the airports, and airspace management. None of these sectors are fully deregulated; the latter two remain almost totally under the control of governmental agencies. To redress this problem and move toward a fully competitive air travel system, I would suggest you undertake four extremely important steps:

Repeal the "fairness" regulatory powers of DOT.—You should introduce legislation to repeal the current DOT regulatory authority to reregulate the airlines. Nothing would do more to encourage firms to shift their attention to the air traveler and away from their lawyers, than removing the laws which lead them to blame their market reversals on "unfair competition" or "monopoly." There will be fewer witch hunts for "bias," if you move to eliminate the laws against witchcraft.

Adopt a free trade policy in air travel services.—Current laws make it illegal for a domestic carriers to directly sell air traveler services (to obtain landing rights) abroad. Our politicians must first negotiate with their politicans. In other areas of the economy, American exporters receive assistance from U.S. Officials, but also are free to market directly. Such flexibility might be important; a promise of several flights a week to a depressed area of say England or Japan might well change the political climate within those nations and encourage a more open air travel policy. At worse, removing these impediments would decouple trade in air travel services from other trading issues. Given the political problems now hindering most trading questions, that gain itself would justify the legalization of free trade in the air travel area.

Similarly, there is no reason why the American consumer should not enjoy the benefits of lower cost travel. Foreign carriers should be allowed to carry American passengers when they transit the United States. Such new entry carriers would further increase the opportunities for economical air travel.

Remove the barriers to peak period landing fees.—A major impediment to efficient airport utilization and, thus, a major factor leading to the pressures to expand airports is the difficulty of implementing peak period landing fees. Studies indicate that even mild movements in this direction would substantially reduce the need for expansion. The FAA has in the past reacted negatively to such proposals; their power to block future steps in this direction should be eliminated.

Privatize air traffice control.—The single major barrier to further gains in air travel deregulation is the FAA's strangle hold on air space capacity. The FAA holds total monopoly control over all airspace surrounding all major airports. Several of these areas are already congested and more are expected to become so over the next decade. The FAA has reacted to this problem by increasing its tax revenues, developing a large-scale centralized computerized air traffic control system, and imposing new regulatory restraints on the scheduling freedom of airlines. Last fall, the FAA forced the airlines to agree to specified scheduling agreements that, in effect, close economic entry to these regions, and thus restrict potential competition. The impact of these restrictions is likely to become more important as air travel increases this summer. This reregulation risk is inevitable; a government controlled resource must be regulated since there is no pricing mechanism to allocate it efficiently.

The solution to this problem is privatization. "Congestion" is only a "problem" in areas under government control. A congested facility in the marketplace creates incentives to better ration the resource and to consider capacity expansion. Unlike the FAA, that decision can be made at the time and place where congestion exists. Privatization has received increasing attention over the last few years, and there has already been some selective contracting out of smaller airport towers (a Kansas-based firm was selected to operate some of these towers). The skills to assume a larger responsibility, to manage a major facility, already exist in the private sector. Your Subcommittee might schedule hearings on this topic and request that the Congressional Reference Service and the DOT Office of Policy Analysis prepare contingency plans on alternative ways of privatizing the Chicago or New York Airspace Regions. Then next summer, if congestion again becomes a major problem, you would then have an action plan ready for consideration.

To summarize, the allegation that computerized reservation systems have or could create "unfair competition" without government support is unwarranted and should be dismissed. The major risk of monopoly faced by the air travel industry stems from the fact that government continues to direct, manage and control key sectors of the industry. Consumers would be well served were you to adopt the program outlined above, and to move toward a fully deregulated industry.

I appreciate the opportunity to testify here today and would be pleased to answer any questions you might have.

Mr. DOYLE. Thank you very much. I apologize again for Senator Kassebaum having to leave. The hearing is adjourned.

[Whereupon, at 1:50 p.m., the hearing was adjourned.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

STATEMENT OF ALFRED E. KAHN

Madam Chairman and members of the Subcommittee, I am sorry that my recent illness made it infeasible for me to appear before you in person. I am grateful, however, for the opportunity to submit this statement, because I have an intense interest in fostering and preserving the regime of competition that we—you in the Congress and we at the Civil Aeronautics Board—brought into being by deregulating the airline industry seven or so years ago.

I testified on the subject of computerized reservation systems almost two years ago before the House Subcommittee on Aviation. I was concerned then about the implications for airline competition—and therefore for the success of deregulation—of the fact that the two systems most used by travel agents were those owned by United and American Airlines, the two largest companies in the industry, and of the ways in which, according to the CAB, those two companies were administering their systems. While I was not in a position to recommend a particular remedy, I strongly expressed the view that, if the facts were as I understood them, "the present arrangements surrounding CRS do pose a serious threat to the viability of competition in the newly deregulated airline industry," and that corrective government intervention would be not only fitting but necessary.

As I did last time, I think it important to emphasize at the outset of this statement that I have not personally made a detailed, first-hand, factual study of the operations and specific alleged abuses of computerized reservation systems. But I have read accounts of the controversies about these practices in the press, the CAB's findings in connection with its rulemaking and public defenses of the present arrangements, and I have studied with special care the lengthy, thoughtful submission by the Justice Department in the CAB proceeding. I have also discussed the situation with some of the interested parties and given serious thought to the issue—sufficiently, I believe, to justify my suggesting some conclusions for your consideration.

I should point out, finally, that I am a Director of New York Air, which the Justice Department's study identified as a victim of American Airlines' CRS policies. I hope it is clear to you, however, that it was my interest in airline competition that both predated and explained my acceptance of a directorship in a new entrant airline, and not the other way around. I have prepared this statement and submit it only in my private capacity, as someone deeply committed to a competitive airline industry.

I think it will be most efficient if I begin by setting out, baldly, the ultimate conclusion of this statement. It is that the present CRS arrangements pose a serious, continuing and indefensible threat to the survival of effective competition in the airline industry and therefore to the success of deregulation; that the crux of the problem is the ownership of the systems by the airline companies—it is no coincidence that it is the very largest airlines that also dominate the provision of CRSs—and that, therefore, you should consider very seriously requiring that the airline owners of the existing computer reservation systems offered to the travel agency community be required to divest themselves of interest in them.

I do not reach this conclusion lightly. To some extent—but, as I will point out, by no means entirely—the dominant role of the largest airlines in the provision of CRSs is the result of successful innovation, and incentives to innovate are of the utmost importance. That means, in a free enterprise economy, that we must not interfere with or alter the rewards that innovators are able to reap in the market from their contributions except in the presence of an overriding social interest in our doing so. But the policy of preserving competition, within the meaning of the antitrust laws, is just such an overriding social interest; and there is a venerable and close-to-universally approved antitrust tradition that where companies have achieved market power—even if as a result of innovation, but even more clearly

when it has *not* been the result of superior efficiency or successful innovation alone—*and* they have actively exercised that power to suppress competition or to deny rivals a fair opportunity to compete—not in the exploitation of the innovation itself (which might be entirely legitimate) but in some other relevant market or industry—the public interest in the preservation of competition takes precedence. That, in my view, is exactly the situation the Subcommittee confronts here.

The question then becomes one of the suitable remedy. In some circumstances—and I believe this is one such—divestiture is the simplest, most efficient way of preserving competition. Nor need that remedy be confiscatory: the owners of the assets to be divested—in this case the computerized reservation systems—should be given the opportunity to dispose of them in the market, where presumably they will be able to obtain what those innovations are worth—that is to say, what net income they may be expected to provide to a non-airline company and apart from the possibility of their being used to suppress competition in the airline industry itself.

The questions for this committee to examine, then, are questions of fact rather than of principle—namely

whether the ownership of computerized reservation systems by American and United Airlines gives those companies substantial market power;

whether that power is the product of their successful innovation alone;

whether they have indeed used that power not merely to reap the value of their innovations directly, in rental charges to travel agents and participating charges to other airlines, but also to suppress or distort competition in the airline industry itself, that is to say, in the offering of air transportation services;

whether, divestiture, by removing the incentive and power of the companies to use their CRSs in this way, is likely to be the most efficient way of eliminating the threat they pose to competition; and

whether, finally, the benefits of such a remedy, in terms of the preservation of competition, outweigh any losses in efficiency from the integration of airline and CRS ownership.

My reading of the facts is that the answer to those questions is probably in the affirmative, although I would have to know more than I do about the efficiency question to be confident about the last question.

This committee now has available to it a very extensive record most of which was not available to me when last I testified on the subject—namely, the hearings of the House Aviation Subcommittee, the CAB's rulemaking proceeding and decision, the exceptionally detailed and impressive submission by the Justice Department in that proceeding, and now a record of your own hearings.

What emerges from that record—which, I feel obliged to repeat, I have not had the opportunity to study exhaustively—is I think a clear demonstration of the very considerable opportunities for anticompetitive behavior when a dominant airline owns a dominant CRS—I will attempt to be somewhat more precise shortly about what I mean by "dominant" in those contexts—and the substantial rewards it may achieve by doing so. The submissions also suggest in very specific detail that on numerous occasions and in a variety of ways the owners of the principal CRSs, United And American, have in fact deliberately used them to suppress or distort competition in the airline business, and that they continue to do so to this day.

MARKET POWER

Both the Department of Justice and the Civil Aeronautics Board concluded that the major providers of computerized reservation systems possess very substantial market power in the offer of such services. As I have already observed, to the extent that power stems from their own successful innovation—and that obviously has been one part of the explanation—a believer in free market competition would have to regard it as unexceptionable in itself. But it is clear from the evidence presented by these two agencies that the power stems also substantially from the dominance of the principal providers of these systems in the major airline markets; it is precisely that financial link that must be the focus of this committee's critical scrutiny.

Both the Department of Justice and the CAB found local market dominance by SABRE, APOLLO and (in a very few cases) PARS and SODA in numerous regions of the country. In 11 of the largest airline markets, one CRS accounts for over 60 percent of the revenues generated by travel agency sales; the share is 92 percent in Anchorage, 88 percent in Dallas, 84 percent in Cincinnati, 72 percent in Denver, and 71 percent in Kansas City. In 23 smaller metropolitan areas one CRS accounts for 90 percent of the travel agency revenues and in another 21 its share is 80 percent or more; this 44 includes such cities as Burlington, Vermont, Waco, Texas, Lawrence, Kansas, El Paso, Texas, Boise, Idaho, and Charleston, West Virginia.

I see little point in burdening this statement with an exploration of whether the fact that not all ticket purchases and sales are made through travel agents undermines the significance of these preponderant shares of the revenues of travel agents as indicia of monopoly power, since that question has been more than adequately, and in my judgment persuasively, answered in the negative by the analyses of the Department of Justice and the CAB. The People Express experience in this respect demonstrates little more than the extremely low fares a carrier may have to charge if it is to avoid dependence on a CRS.

The mere fact of one supplier having such a preponderant share of ticket sales in individual city markets would not be troublesome in most industries if entry by competing systems were easy; the possibility of such entry would in that case exert a disciplining effect on the incumbents. This general economic principle is only partially applicable to the CRS case because, as the Department of Justice points out, while a travel agent would be likely to find acceptable any CRS that listed all the flights and provided the other useful services, to an airline it is important to be represented on every CRS employed by any substantial number of travel agents in the cities in which it hopes to sell tickets. If that airline owns a CRS with significant market penetration, its ability to exclude other CRS owners from that system sets up a kind of mutual deterrence that protects it from exclusion by other airline-owned CRSs. But airlines without such a CRS of their own have little defense against discriminatory treatment or exclusion. Among the latter, only a carrier so important in a region that withholding its schedules would make a CRS unsalable to travel agents has a significant, if risky, defense. As a result, *all* CRSs with significant market penetration have a kind of market power over the charges and other conditions they impose on other carriers. This might be tolerable if that power were exerted relatively uniformly, without distorting competition among airlines, but as I'll discuss later, an airline owning a dominant CRS has special opportunities to handicap its competitors. Under these circumstances, non-CRS-owning carriers would not necessarily be protected from exploitation by competition among CRSs or the possibility of competitive entry, even if it were easy.

In any event, I find myself wholly persuaded by the finding of the Department of Justice that the barriers to entry are high and—and this is the significant point from the standpoint of the issue of divestiture—they are markedly enhanced by the fact that the dominant CRS systems in these several markets tend to be owned by the dominant airline carrier in each.

It is obviously not mere coincidence that the preponderant number of CRSs in operation—an estimated 70 percent according to the Department of Justice—were the systems of the two airlines that are by a wide margin the largest carriers in the industry. Even more persuasive, it was obviously not a coincidence that 88 percent of the CRSs in place in Dallas were American's SABRE, whereas 72 percent of the systems in Denver were United's APOLLO: it defies credibility that, for some reason that I cannot possibly imagine, the inherent quality of American's innovation caused it to sweep the field on its merits alone in Dallas, whereas in Denver travel agents almost universally recognized the superior inherent virtues of APOLLO. It seems obvious, rather, that the explanation is to be found in the fact that American Airlines is by far the dominant airline at Dallas/Fort Worth and United has a similar position at Denver.

The point, as the Department of Justice analysis clearly explains, is that the dominant carrier in any region has an enormous advantage over any potential competitors in the CRS business, because its schedules are the ones that most travelers are going to want to have access to, along with instantaneous, reliable confirmations, last seat availability and simultaneous issuance of boarding passes; and while even such a carrier will want to offer these services to any CRS that has been adopted by any substantial number of travel agents, withholding them can make it impossible for any other system to sign up travel agents in the first place.

So the prospects of success for a new entrant in CRS vending are very slim for any airline that is not so dominant in its region that it feels certain of its ability to sign up a significant installed base of agents. Even Delta and Eastern, companies of substantial size and marketing clout, have been unable to sign up travel agencies representing more than 5 percent or so of the revenue in the industry, and many of those have been in the Southeast part of the country, where Eastern and Delta are the dominant air carriers and United and American have not historically provided much service. So much, once again, for the contention by companies like American and United that their very large share of the total CRS business is the mere consequence of their innovative efforts and the inherent value of the systems they developed.

A second serious obstacle to independent CRS entry is erected by the manner in which the incumbents have been exploiting their systems—that is to say, the ways in which they have been choosing to obtain their profits from them. As the companies themselves have freely conceded, they have chosen to obtain a large part of their profits not in the rents they charge travel agents but in the diversion of passengers to their own flights that the systems have made possible. A non-airline provider of a competitive CRS would not have that second source of revenue available to it: it presumably would have to obtain its revenues solely from rental fees to travel agents and charges to other carriers for its listing and other services. Even if its costs were no higher than those of American Airlines and United, it would not be able to compete with them for adoption by travel agents, because, being unable to obtain its revenues in substantial measure by diverting traffic from airline competitors through biased displays, incentive programs, discriminatory access to CRS-generated marketing data and control of communications to and through travel agents, it would instead have to quote higher rental charges than they.

In addition, the long-term contracts under which the dominant CRS providers have signed up travel agents, often with very substantial monetary inducements (inducements, once again, that independent CRS providers could not match because of the unavailability to them of revenues from diversion of traffic from other airlines), make it impossible for a new CRS supplier to compete for the patronage of more than a small percentage of travel agents each year, making it additionally expensive for it to reach a minimum level of market penetration sufficient for economic success. In addition, the cost of a travel agency changing over from one system to another confers an enormous advantage on the vendor that has already signed up customers, and means that any entrant has to be prepared to bankroll not only its own startup costs but the switchover costs of each agency it signs up.

MARKET PRACTICES

Having established to my satisfaction that American and United Airlines, in particular, enjoy very substantial market power over other carriers in the provision of CRS services, and that that power has not stemmed exclusively from their own laudable innovative efforts, I turn to the second logical link in the chain of reasóning: did they use that power in such a way as to distort competition in the market for airline services?

The answer is that, the Department of Justice clearly established, they have indeed used their CRSs:

(1) To influence in their favor the information on the basis of which travelers choose flights. They have done so through the introduction of bias into the displays of schedule availability and through more specific actions directed at suppressing both fare and flight information unfavorable to them, and even the availability of seats on competing carriers. The Justice Department uncovered a series of actions of this character, including refusal to post the lower fares of a competitor in the shopping guide section of the CRS display, and incorrect indications that competitors' flights were not available for sale at times when they actually had seats available. United even prevented one competitor from explaining in APOLLO's message section the problems being created by "mistakes" in its seat availability section.

(2) To enforce and powerfully to reinforce—in ways not available to their competitors—programs that distort the incentives of travel agents from providing expert, unbiased advice to the traveling public, to serving, without disclosing that fact, as the biased sales representatives of the CRS owner. I emphasize the absence of disclosure because it would not in itself be objectionable if a travel agent or any other retailer chose to represent only a single supplier rather than the full range. We don't expect Ford dealers to sell Chevys or to be particularly objective in helping car buyers compare the two. But travel agents represent themselves to both the public and to government officials, including Congress, as unbiased professional guides through the confusing terrain of a competitive airline marketplace—and I have no doubt most of them try conscientiously to be just that. What is objectionable is that airline ownership of dominant CRS systems provides the owners with both the incentive and powerful additional means to create undisclosed relationships with travel agents that lead them to bias their advice to the detriment of travels.

(3) To monitor the programs and progress of their competitors and to develop and monitor targeted programs of competitive response and retaliation in ways not open to those rivals. By being able, through their CRSs, to monitor bookings by "their" agents on competitors' flights, United and American can gauge the effectiveness of promotional campaigns by other airlines as well as their own, and can quickly identify agents who seem to be wandering from the fold, perhaps even in violation of an

under-the-table deal to remain docilely loyal to them. The situation this creates for competitor airlines is roughly the one you would face as candidates for reelection if the only telephones available for your use in waging your own campaigns had extensions in your opponents' offices, while your opponents conducted their campaigns on private lines.

I do not suggest that the ownership of CRS systems by major airlines is the only source of distortion of travel agents' incentives and of the advice they give travelers. Other airlines as well doubtless compete for the loyalty of travel agents by offering them inducements of one kind or another to steer customers to their flights; and I find this troublesome, for the reasons I have already suggested. The point is only that ownership of the CRS enormously increases the ability of the airline to bias agents' advice and to monitor the effectiveness with which it does so, by making is possible for it to tell precisely how many tickets they issue travelers for each flight of each of their competitors, and therefore to pinpoint their rewards to whatever measure of performance they select.

These problems persist even though though the CAB in one of its last acts before sunset promulgatged a set of rules designed to reduce these distortions of the competition between CRS owners (especially American and United) and the others. According to reports in the trade press, United and American continue to offer agents incentives to steer customers in their direction—rewards attuned not just to the absolute number but also to the proportion of total tickets sold on their systems—incentive programs, as I have already observed, that can be monitored only by a carrier that has direct access to detailed information about the agency's actual sales—that is to say, only by the CRS owner. The beauty of having your competitors' seats sold on your system is that it provides you with a convenient means—unavailable to them—of monitoring their efforts and targeting your responses.

The most flagrant—but by no means the only—evidence of this continuing problem under the new CAB rules—evidence of the power that ownership of the dominant CRS system provides and of the continued exercise of that power to induce travel agents to become undisclosed purveyors of biased information to the traveling public—is found in the fact that first United and then American have found it possible to sell to travel agents the *primary* use of the concededly biased "secondarly" screens as substitutes for the unbiased screens that they are obliged by the CAB's rules to offer the travel agency community. (Although United, American and TWA have now announced their intention to drop this practice—a development whose significance I will try to appraise below—its emergence immediately after the CAB's decision, I strongly believe, remains both instructive and relevant). I emphasize the adjective "primary"; it refers not to the recourse to the secondary screen merely at the request of the traveler, who asks specifically for a United or American flight (because, to take the most obvious possible reason, he or she is a participant in their Mileage-Plus or Advantage programs), but on the initiative of the travel agent or, even worse, of the owner of the agency. The process of inventing around the CAB's CRS rules swiftly developed to a point where United and American had both induced travel agency owners to permit them to provide a biased display as a matter of course to any employee who turned on the computer. In other words, despite the CRS rule, you the customer could have transacted business with a travel agency employee who could not even choose to offer you information off an unbiased screen, or who would have had to work extra hard to to so. All this, of course, without your knowledge.

Why would a travel agency knowingly have chosen to use programs that accessed schedule and fare information in a way that it knew was biased in favor of the CRS system owner? The answer must be that the CRS carrier owner offered the agency one inducement or another, whether low rental fees or an explicit incentive commission—in effect a share in the incremental revenues that use of the biased screen undisputedly and indisputably conferred on the CRS-owning carrier. The travel agent who chooses in these circumstances to be a truly unbiased provider of information foregoes substantial incentive payments and advantages offered by one of the two airlines whose services it is likely to find itself selling most.

Part of the bill—in dollars or some other form—for the incremental revenues that such practices confer on the CRS owners and travel agents is of course paid by the customers who find themselves paying more for a trip on one airline than they might have paid had they had an unbiased choice between it and another, or making an inconvenient connection on a CRS-dominant airline rather than another, or simply finding it more difficult—for lack of neutral information—to exercise whatever preferences for one airline service over another they might otherwise have chosen to exercise. The other part of the bill is of course paid by the competing carrier that loses business it would otherwise have received. And ultimately, if the

result is to convert the airline industry into a compact and much more ruly oligopoly, a much bigger bill is paid by all travelers.

Despite the announcement by the three leading carriers, on March 27, of their intention "voluntarily" to eliminate bias in their secondary displays, that particular practice remains highly illuminating as a demonstration of the potential for abuse inherent in the present system of airline ownership of CRSs. It provides a striking recent example of the kinds of ways in which an ingenious airline owner of an even more ingenious CRS, inventing around whatever regulations may be adopted, can use the system as a highly discriminating and discriminatory competitive tool, to distort the advice travel agents give their customers and direct to themselves business that they would not otherwise receive. The question therefore remains whether this latest change—adopted, obviously, under the duress exerted by active Congressional attention, and apparently without conceding anything about the undelying principles and equities involved—will, any more than the CAB's rules, suffice to eliminate the threat to competition posed by continued airline ownership of CRSs.

COMPETITIVE CONSEQUENCES

The detrimental effects of bias on competition in the airline business have been detailed by the Justice Department and established as findings in the CAB rulemaking. I accept their conclusions.

Let's see what's at stake here. I start from the premises that installing a regime of free competition is what airline deregulation in the end was all about, and that consumer and producer choice is what competition is all about. Instead of the government determining what sorts of service the public is to get, who is to offer it and where, and what prices are to be charged, under what circumstances, we decided to leave investors and entrepreneurs to offer the public whatever they saw fit, subject only to the disciplines of self-interest and competition, and to leave it ultimately to the public to make all those choices. Firms would prosper or fail only as they were successful or unsuccessful in figuring out what consumers wanted and giving it to them.

The practices of airline owners of CRS systems strike at the very heart of this process—the process of consumer choosing that is supposed to be the ultimate regulator. When a consumer chooses from the offerings of airlines using a travel agent intermediary who is in turn using—or voluntarily promulgating—biased information, the consumer will less often choose the air travel alternative that satisfies him or her the most; and competitive survival or failure will to that extent no longer be determined by the merits of a carrier's air transportation offering. This is not mere speculation. The airlines have themselves conceded that one of the ways—indeed the most important way—in which they have attempted to reap the rewards of their pioneering efforts in CRSs was precisely by distorting consumer choices in this way.

In the end, what airline ownership of CRSs does is to create the potential for removing the link between consumer preferences and producer offerings. This is the very link that makes relatively unregulated free markets superior to regulation as efficient providers of goods and services.

As the Department of Justice concluded, these arrangements and practices do not merely distort consumer choices and give rise to welfare losses for this reason alone; they also restrain competition: "the prospect of increased access prices and display handicaps may discourage carriers form entering markets in competition with the CRS host" (Comments on Proposed Rules, CAB Docket 41686, page 158).

Indeed, the Department presented abundant evidence that the airline owners of CRSs exercised their market power also to vary the terms and conditions on which they permitted—or refused to permit—access to those systems in such a way as to handicap or harass direct competitors as contrasted with non-competitiors, price cutters as contrasted with non-price-cutters. This may well have seemed a perfectly reasonable thing to do, from their standpoint: after all, the systems were theirs; they were in at least one sense doing the other carriers a favor in giving them access; and what could be more logical than to vary the prices they charged, the service they provided, and their willingness to transact at all, with the value of the service to the other carrier, on the one hand, and, on the other, the amount of revenues that such an accommodation of its competitors might cause the CRS owner itself to lose? The fact remains that such variations in terms, in the presence of market power in the supply of the CRS, clearly threatened to dilute the effectiveness of competition in the airline business and along with the "dirty tricks," the Department of Justice showed, did in fact help discipline unruly competitors or drive them from the market.

In short, what we have here is the classic antitrust practice of monopolization—the exercise of control over bottleneck facilities to deny other companies a fair opportunity to compete—not in the provision of the bottleneck facilities themselves, but in the offer of products or services that depend upon fair and equal access to those bottlenecks.

REMEDIES

Defenders of the present CRS arrangements say that all this is just part of the rough and tumble of the real world of competition that Congress intended to introduce into the airline industry, and that any governmental interventions would constitute the very kind of regulatory tinkering that Congress intended to terminate. The essence of competition, they assert, is the quest for competitive advantage; and the innovation of CRS systems and the attempts by the owners to take advantage of the marketing opportunities those innovations have created for them are entirely legitimate.

I disagree. There is every difference, in principle, between the previous kind of regulation we practiced in the airline industry, in which the government systematically controlled and suppressed competition, and the kind of regulation involved in our historic antitrust policy, the essential purpose of which is to preserve market competition against private suppression whether by collusion or by monopolizing tactics. It is and has for 95 years been a central and inescapable responsibility of government to ensure the preservation of competition, and that has meant, among other things, preventing business tactics that have the consequence of denying competitors an opportunity to prosper or to fail on the basis of the relative quality of their offerings to consumers. The choice is not and never has been the simple one between total regulation on one side, such as Congress overturned in the Airline Deregulation Act of 1978, and pure laissez faire on the other.

If, then, we reject a policy of simple laissez-faire with respect to the domination of CRS by the two largest airlines, there are two possible approaches to a remedy.

The first would be to continue, and attempt to perfect, the regulatory scheme adopted by the CAB at the end of 1984. The Committee's present hearings have evidently already become part of that process: witness the carriers' "voluntary" decision to eliminate secondary screen bias, to which I have already alluded. This approach would leave undisturbed the power and incentive of the major CRS system owners to distort the process of airline competition, to deny their rivals a fair opportunity to compete on the basis of the price and quality of their air travel offerings, but seek to prevent its exercise by the promulgation of rules. The second would be to eliminate the power and the incentive by dissolving the relationship that gives rise to them—namely the ownership of travel agency computer reservation systems by the airlines, and particularly by the two largest airlines in the country.

I have not been in a position to study the few months experience under the CAB rules sufficiently to be willing flatly to reject the first approach, or, therefore, to be able to predict confidently that the latest commitment by the carriers about the secondary screen will not suffice. I have a strong suspicion that the process would have to be a continuing one—that no set of rules could be framed that would be self-enforcing and solve the problem once and for all. When I was Chairman of the Civil Aeronautics Board, I remarked more than once on the endless ingenuity of businesses in opening up holes in the dikes regulators construct against the forces of competition—more and more sumptuous meals, free inflight entertainment, denser scheduling, larger commissions to travel agents—and the corresponding rule of the determined regulator: every time the dike springs a leak, stick a finger in it. And, I observed, "just as a dynamic industry will perpetually find ways of opening new holes in the dike, so an ingeneous regulator will never run out of regulatory fingers."

The solution Congress adopted for the airlines was to remove both regulator and dike.

In the CRS situation the equivalent solution would be the second one. We have already seen the CAB invent rules and the airline CRS owners invent around them. The recent testimony before the Committee strongly suggested that the secondary display was not the only serious new or residual leak in the dike—that some of them are unpluggable in the absence of divestiture. At the very least, we must be certain that we have in place mechanisms for quick and efficient enforcement of the rules and the new commitments of the carriers, backed up by the threat that the next immediate remedy will be divestiture. As long as the profit to be reaped form bias and discrimination is regarded by the dominant airlines—as their actions seem to suggest they do regard it—as superior to the profit to be earned from rental charges to agents and non-discriminatory listing or service charges to other airlines,

while relying, in order to attract passengers, simply on the relative attractiveness of their airline services, it seems a reasonable presumption they will always find ways of enlisting agents in circumventing the intent of any regulatory scheme that can be divised. And getting the government ever more deeply involved in the operations of the reservations systems—specifying connection algorithms, specifying what is really a primary screen and who must use it, specifying more and more of the terms of arrangements between airlines and travel agents, strikes me as far more intrusive than the structural solution of divestiture. Divestiture would simply eliminate the power and the incentive of CRS owners to distort, discourage or suppress competition.

An intelligent choice between the regulatory and divestiture remedies must take into account also the possibility that there may be efficiencies in combining the running of an airline and providing a CRS that would be lost under divestiture. I am not competent to offer the Committee an opinion about this possibility.

I do know that the existing CRS vendors provide services for other airlines, as well as for each other; it would seem, then, that a third party vendor could likewise serve all of them satisfactorily. As for the possible efficiency gains from an airline having its own system, it would seem a carrier that is already supplying one form of CRS to its own reservations and ticket counter agents and another to travel agents, as American and United Airlines do now, should be able to continue to support its internal services once it ceases to sell them to travel agents. And of course many airlines buy both their "inside" and "outside" systems from other airlines. I do not suggest, however, that these speculations settle this question.

I regret that I have not been able to make the kine of thorough study that would enable me to make a firm recommendation to this committee in which I would have a high degree of confidence. I have studied it sufficiently, however, to be confident in these judgments: first, that a policy of laissez-faire is simply unacceptable, and that the imposition of a governmental remedy is not only not inconsistent with the philosophy that underlay airline deregulation, it is necessary if deregulated competition is to do the job we all intended it to do; and, second, that as between the remedy of detailed regulation and the divestiture of travel agency CRSs from airline ownership, the latter deserves your most serious consideration, as the least intrusive, least regulatory, and most logical solution to the problem.

STATEMENT OF RANDALL MALIN, EXECUTIVE VICE PRESIDENT—MARKETING, USAIR, INC.

Chairman Kassebaum and members of the committee; USAir is submitting this statement to provide the Committee with our view of the effect of airline-owned computer reservation system ("CRS's") on competition in the air transportation industry and on consumers of air transportation. Let me start by saying that some have suggested that the CRS problem has been solved by the CAB's CRS regulation. Indeed, Monte Lazarus, Senior Vice President, External Affairs of United Air Lines, advised this Committee last fall during hearings concerning CAB Sunset that:

"We think that whatever happens, whatever the Board does, and wherever you put jurisdiction, the CRS rules are going to live and we are going to have to live under those rules. And the CRS issue is a dead issue for us at this point. At the CAB that issue is gone.

"We know there is going to be a rulemaking. We know we are going to have rules. We are going to live under those rules."

Hearings on the Sunset of the Civil Aeronautics Board before the Senate Subcommittee on Aviation of the Committee on Commerce, Science and Transportation, 98th Cong., 2d Sess., Serial No. 98-93 (June 21, 1984), at 25.

Thus, United stated last fall that the CRS issue would become a dead issue once the CRS rule became effective and that United wold abide by the CRS rule. Many airlines, including USAir, had hoped that that would be true. However, events have transpired since the promulgation of the CRS rule which demonstrate that CRS is not a dead issue and that United has failed to abide by the rule.

This Committee is well aware of the CRS problems which existed prior to the promulgated of the CAB's rule. Thus, I will not reiterate the market behavior which gave rise to the CAB's rule. My comments will focus on what has occurred since November 14, 1984, and explain why the CAB's rule has failed to protect airline consumers and has hampered airline competition.

After the Board promulgated its rule last August, the CRS vendors announced new prices for their systems and delivered identical contractors to each airline, insisting that they be signed without any negotiation of substantive provisions. The

new prices for CRS access reflected substantial increases. However, since CRS systems are essential to the marketing of our air transportation services to the consuming public, neither USAir nor any other participating carrier had any bargaining power with respect to price or other major contract terms.[1] We faced the dilemma of capitulating to the vendors' demands or foregoing an absolutely essential marketing tool.[2] The CAB believed that as a result of its rule CRS fees might increase due to the prohibition against bias. However, the CAB erroneously concluded that "the bargaining power of some participating carriers combined with the nondiscrimination requirement, [would] generally hold fees close to reasonable levels." 49 Fed. Reg. 32540 at 32552.

USAir was willing to pay higher fees, within reason, for displays in neutral CRS's. However, we did not get what we bargained for. We now pay substantially higher fees for participation in CRS's which continue to provide biased displays. United has flagrantly violated the spirit of the CAB rule by introducing a biased secondary display which gives its flights preferential treatment over those of other carriers and allows travel agents to lock into the biased secondary display. Let me briefly explain why United's biased secondary display defeats the purpose of the Board's anti-bias rule.

United has provided its subscribers with the ability to utilize automatically its biased secondary display called "Apollo Plus," through a pre-set computer instruction given by the owner-manager of a subscribing agency. In addition, the owner-manager may completely override his travel agents' access to the primary unbiased display called, "Apollo Basic," by entering a computer instruction.

The instructions given to Apollo travel agents, attached as Exhibit E,[3] clearly explain the manner in which the "preset" and "override" instructions can be utilized. By entering an instruction in the display control table, the owner of an agency using Apollo can enable its agents to have automatic access to the biased secondary display rather than the unbiased, Apollo Basic, display, Exhibit E, at 2. Once that instruction is given, the agent remains in Apollo Plus since it is the preset display. The agent must enter a computer instruction to switch to Apollo Basic. "The owner-manager is the only person who may institute changes to [the] display control table." Exhibit E, at 4, Thus, with one entry, all of an agency's computer reservations terminals can be pre-set to a biased display.

In addition, the owner of the agency may enter an instruction in the display control table to "override" completely its agents' access to Apollo Basic. Once that instruction is given, agents in that agency cannot view the Apollo Basic display at all, but are only allowed access to the biased secondary display.

These capabilities offered by United provide a mechanism through which a biased display becomes the de facto "primary" display used by the agent subscriber. Clearly the Board's intent in promulgating its rule was to make unbiased information regarding air transportation available to travel agents. The Board assumed that subscribing agents would use such unbiased displays in providing information to the traveling public. The Board did not contemplate that system vendors would provide agents with the technical ability and inducements to use biased displays in lieu of unbiased displays. A system that allows one person to pre-set all of an agency's computer reservations terminals to a biased display obviously is intended to facilitate bias and to allow compensation to be provided to induce utilization of such biased displays.

Twelve carriers, including USAir and the Regional Airline Association, submitted a letter to the CAB on December 6, 1984, requesting the Board take action to prevent such circumvention of the Board's rule. In addition, Trans World Airlines submitted a similar request to the Board on December 14, 1984. American Airlines sent a letter dated December 26, 1984, requesting the Board to preclude United from utilizing the "pre-set" and "override" features associated with its secondary display.

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[1] After the promulgation of the Board' rule, USAir engaged in several unsuccessful attempts to bargain for different terms regarding particiaption in the largest airline-owned CRS's. First, of all, USAir sent letters to the three largest system vendors urging them to reconsider the reasonableness of their new fees and to provide cost information justifying the proposed charges. See Exhibits A, B, and C. These requests were ignored by United, American and TWA. USAir also approached American regarding transfer of its CRS, Sabre, to an entity to be jointly owned by American, USAir, and other co-hosts prusuant to section 16 of its Co-Host Agreement, which contemplated such a transfer. See, Exhibit D attached hereto. American rejected this offer.

[2] The airline vendors are aware of this fact, for as the Board found, "[V]endors take no account of the price charged by their competitors, moreover, they virtually ignore their own cost in setting their prices." CAB Final Rule, ER-1385, 49 Fed Reg. 32543 (August 15, 1984).

[3] The exhibits were not reproducible and are in the committee files.

The Board was unable to act on these requests prior to its sunset. Since that time, the Department of Transportation has failed to take any action on this matter.

We believed that if the CAB failed to take action to close this loophole, other system vendors would follow suit. We pointed out that the mere existence of unbiased "primary" displays would not solve the competitive problems which led to the promulgation of the Board's rules if the unbiased displays were not utilized. In the absence of DOT action, CRS vendors are permitted to use their CRS market power to harm consumers and distort competition in the air transportation market as a result of their use of secondary displays.

As predicted, because of the DOT's failure to take action, American decided to offer a pre-set capability similar to that offered by United. Thus, American recently announced that even though it does not believe that the pre-set and override capabilities offered by United comply with the spirit of the CAB rule, American would modify its system to remain competitive with United. Effective February 21, 1985, Sabre subscribers were able to view American's biased display as the primary response to their availability requests. A copy of American's mailgram announcing this new feature is attached as Exhibit F.

As a result of the usage of the biased secondary displays, consumers are not being made aware of flights that they would have been apprised of it unbiased displays had been consulted. USAir recently conducted a market survey to determine how Apollo agencies which are locked into the Apollo Plus, or biased secondary display, differ from Apollo agencies which rely on the unbiased Apollo Basic display. Twenty calls were made, ten to Apollo agencies which were known to be locked into Apollo Plus and ten to Apollo agencies which were not locked into Apollo Plus. Markets used in this survey were selected to ensure the existence of transportation options on several different carriers. The same markets and time requests were used for both groups of agencies. Based on this survey, we concluded that usage of the Apollo secondary displays severely impacts information provided to consumers regarding various flight options. Agencies locked into Apollo Plus quoted United first on 90 percent of the calls and USAir first on 10 percent of the calls. United received 66 percent of the reservations made while American received 33 percent of the reservations made. In those Apollo agencies relying on the unbiased Apollo Basic screen, United was quoted first in only 40 percent of the calls, while USAir was quoted first on 50 percent of the calls. United received 20 percent of the reservations made while USAir received 70 percent of the reservations made. While this study does not quantify precisely the effects of secondary display bias, it is strongly indicative of the manner in which consumers are being misinformed regarding travel options and airline competition is being distorted as a result of the diversion of passengers to transportation provided by the CRS vendor.

United and American will no doubt preach the gospel of deregulation in urging you to take a hands off approach and let the forces of the marketplace resolve any problems. Do not let them confuse the issue. We are all in favor of deregulation of the market for air transportation and prepared to do battle to achieve and hold on to our market shares.

What is involved here is not the market for air transportation. That market is highly competitive and can properly be regulated by the forces of the marketplace.

What is involved here is the market for computerized reservations systems which is a highly concentrated market dominated by two suppliers. To make matters worse, these suppliers are the two largest and strongest competitors in the market for air transportation and they are now succeeding in leveraging their CRS monopoly power to enhance their market shares in the air transportation market.

There is nothing in the catechism of airline deregulation which ordains that one competitor in the air transportation market is entitled to appropriate another competitor's traffic by means of the leverage obtained through the former's monopoly power in the CRS market.

Indeed, the reason air transportation was an appropriation field for deregulation was that vigorous competition existed and the barriers to entry were low. This is patently not the case in the CRS market. The barriers to entry are enormous. Furthermore, while there is competition among CRS vendors for travel agent patronage, there is no competition for airline patronage since every airline must have access to each viable CRS system in order to compete effectively. The evidence of this is irrefutable. Nearly every travel agency depends on a single CRS system while nearly every airline uses all five viable CRS systems.

Airline CRS vendors must be regulated because the barriers to entry into the CRS market are insurmountable and there is no competition whatever for airline—as distinguished from travel agent—participation. In fact, the concept of competition implies substitutability. There can be no competition unless one product or service

can be used in lieu of another. Here there is a consistent pattern that virtually all carriers must have access to each of the CRS systems used by any significant number of travel agents. The deregulation littany [4] is completely inapplicable to CRS systems.

We recognize that as long as airlines are allowed to own CRS's they will have an incentive to manipulate those systems to benefit their air transportation services, thereby distorting competition in the air transportation market and harming the public. Thus, if airline deregulation is to work, airline CRS vendors must be closely monitored to assure that they do not manipulate their systems in a manner detrimnetal to the consuming public or to competition in the airline industry. We believe that the success of airline deregulation is threatened by the continuation of bias in computer reservations systems and urge the Committee to take action to prevent any further erosion of the benefits achieved by deregulation of the airline industry.

Some might suggest that a call for government action of some sort to curb the market abuses which have occurred and continue to occur in the CRS industry is inconsistent with airline deregulation. While free market decisions are usually preferred to government intervention, the free market can only work in a competitive industry. Since USAir and other airlines derive so much of their passenger revenues from travel agent sales, and travel agents rely primarily on CRS's to sell air transportation to the consuming public, the display of each carrier's information in airline-owned CRS's is essential to our ability to compete in the air transportation industry. The CAB found that the CRS systems owned by airlines are essential facilities and, as such, have to be made available to other airlines on fair and reasonable terms. 49 Fed. Reg. at 32547. The Board also found that the type of pricing and competitive conduct engaged in by the dominant CRS proprietors, United and American, was comparable to monopoly leveraging, which has been condemned under Section 2 of the Sherman Act. Id. at 32547-48. That concept, stated briefly, provides that a firm violates Section 2 by using its dominant power in one market to distort competition in another market. Where market situations such as this exist, I submit that government intervention is not only warranted, but is essential.

USAir thus respectfully requests this Committee to consider the detrimental effects to the consuming public and to competition in the airline industry resulting from airline ownership of CRS's, and to take appropriate action to prevent further harm.

Statement on Behalf of Midway Airlines, Inc.

We at Midway Airlines, Inc. appreciate the opportunity to comment on the need to separate the operation of travel agency computer reservations services from the operation of air transportation services by the industry's dominant carriers.

At the outset, Midway wishes to express its support for the study presented to this Committee by the "other carriers," AirCal, et al., entitled "A Critical Look at Airline Control of Computer Reservation System." The conclusions reached warrant your earnest consideration.

Our comments are intended to focus on the specific need for prompt Congressional intervention, which we believe is essential to preserve for the public those benefits of an open competitive air transportation system which were the fundamental objective of the Airline Deregulation Act of 1978.

For Midway, as well as many of the other CRS-dependent carriers, divestiture is not a new idea. From the outset, Midway told the Civil Aeronautics Board that regulations such as they ultimately adopted were only an initial step necessary to help contain the damage while the time-consuming process of securing divestiture went on.

It came as no surprise to Midway that after the Board attempt to eliminate bias the vendors would try to continue it. This is, of course, what they have done with a so-called "secondary" display which by various devices they cajole agents to use as the primary display. Nor were we shocked when the vendors evaded the Board's intention to mandate equal access to CFR-derived marketing information by limiting the vendee carriers to the purchase of the totality of available data (much of which is useless to them) at extraordinary cost. We not only warned the Board of the

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[4] We note that in Mr. Lazarus' statement before this committee last fall during hearings concerning CAB Sunset, he referred no fewer than seven times to "deregulation." Hearings on the Sunset of the Civil Aeronautics Board before the Senate Subcommittee on Aviation of the Committee on Commerce, Science, and Transportation, 98th Cong., 2d Sess., Serial No. 98-93 (June 21, 1984).

likely result on data availability, we also told them that CRS booking charges would be set at exorbitant levels.

While the rules adopted by the Board were largely consistent with those initially sought by Midway in conjunction with many of the other post-deregulation carriers, there were basic differences between what was proposed and what the Board finally adopted. In the first place, we sought the rules as a temporary regime while the Board further investigated what was needed to maintain longer term CRS neutrality in the competitive air transportation market. Our thought was that, with the possibility of divestiture or more restrictive CRS rules, the vendors would have an incentive to restrain themselves.

We may have been naive in failing go recognize a possibly greater incentive to obtain air transportation dominance before a more restrictive CRS regime could be ordered! In addition, imposition of the Board's rules was delayed for a year and the Board thereafter slipped away into the night, leaving any possible further regulatory relief to the good offices of DOT. It took the Board two years, with several congressional nudges and explicit DOJ recommendations along the way, to overcome its ideological blockage against new CFS regulations; it finally recognized that CRS involves a classic antitrust problem which required governmental intervention. It may be that United and American may be counting on a similar time period before DOT could be energized to exercise effectively its regulatory authority.

The Senate should be aware that in the last 24 months at least 11 air carriers operating large jet aircraft have failed. Several of these carriers as well as others stili operating have already sued, or are in the process of preparing antitrust suits against the dominant CRS vendors. But these cases focus on relief from past conduct and it is doubtful whether any of them will result in basic structural changes or meaningful prospective relief. And were the prognosis more optimistic, it would certainly be years before any such result would be effective.

Even if DOJ revived its effort and sought divestiture (which a reading of its comments in the Board's rulemaking proceeding would seem to follow logically from its investigative analysis), it would take too long to prevent an irreversible erosion of the industry's competitive dynamics. As we read of the rapidly growing revenues of the two dominant CRS vendors, note the rapid expansion of their services in both additional frequencies and new markets, it is clear that the trend toward further consolidation of their market power over domestic air transportation is in full flood.

The Congress historically has been concerned about the considerable degree of concentration in the airline industry. In fact, one of the major tasks originally given the Civil Aeronautics Board in 1938 was to reduce the grip of the Big Four carriers. Despite valiant efforts to increase competition, the Board never really succeeded in that task. Again in 1978, as the policy declaration of the Deregulation Act makes clear, the Congressional objective was, in part, to encourage new carriers as a vital factor in maintaining a dynamic competitive market. Deregulation was followed by a flood of new carriers whose energy and imagination introduced new services and innovative fares.

But the tide appears to have turned. Not only have at least 11 carriers failed in the past two years, there have been no significant new startups. And the largest carriers' dominance of the market is, if anything, increasing. Thus, in 1984, three carriers, United, American and Delta, together accounted for 60% of the industry's operating profits and more than 70% of its net profits! Aviation Daily (2/26/85, p. 298). Significantly, among the 10 largest carriers, other than American and United, only two operated more revenue passenger miles in 1984 than in 1983 and United's growth alone was equal to that of these two carriers combined, and American's growth was only slightly behind. Aviation Daily (3-13-85, p. 66).

The growth of hub systems has placed an increasing emphasis on access to major cities where the large carriers dominate the market and the airport facilities essential to market entry. It was recently reported, for example, that Braniff sold some surplus gate positions at two key airports for a total of $36 million. Patently, costly gate positions pose an entry barrier for new carriers. Also, new two-tier pay scales have eroded the labor cost advantage which new entrants once had; the diminution of this cost advantage has coincided with a considerably greater difficulty in attracting venture capital. And, third, developments in the interline system which have permitted the major carriers to, in effect, withhold the access of new entrants and some post-deregulation carriers to connecting traffic has similarly impeded entry. These factors, along with the ability of the dominant carriers to place other carriers in a less favorable position to communicate with the major distribution system in air transportation, are leading to a further unhealthy concentration in the industry.

This drive toward concentration in the air transportation market is being additionally fueled by more than $200,000,000 a year in CRS fees, plus more millions in

net ticketing charges involuntarily extracted from their weakened competitors. At the current rate, it may not take too many more years before the air transportation market will be so dominated by the two carriers as to become resistant to regulation by competitive market forces.

Let there be no misunderstanding about Midway Airlines' position. It was the prospect of operating an airline in an open competitive market without having to run to the Board for permission to change markets or fares which attracted investors to Midway and made it possible for Midway to obtain a market toehold. Midway will survive. But it does not want to see a drastic change in the regulatory environment in which it operates; a reversion from the free market to Government regulation. But that is the inevitable result of a failure on the part of the Government to separate, and separate soon, the operation of an airline from the operation of a CRS. And the only realistic prospect of early Government action is legislation.

STATEMENT OF DIANE C. POWELL, PROGRAMMMER/ANALYST, AMERICAN AIRLINES

I am an employee of American Airlines who has worked on the automation of travel agents since its inception in 1976, first as a specialist at the user help desk and now as a programmer/analyst at the computer center. I have helped the program grow from the first installation to the current major factor in the travel industry. I am proud of the work that I and thousands of my fellow employees have done to make our computer an essential tool for the modern travel agent.

Prior to our efforts, the travel agent worked in a completely manual mode, handwriting or typing tickets and invoices, and using the telephone to book travel arrangements for their clients. Today, SABRE provides a completely automated environment that allows the travel consultant up-to-the-minute information on schedules and fares as well as automated booking and document printing at considerable savings in time and personnel. It is unlikely the travel industry could have survived airline deregulation without computer automation due to the wild proliferation of airlines and fares that was the consequence of that legislation.

American Airlines has invested millions of dollars in computer hardware and software, in employee salaries and benefits, and in construction of new facilities to house the computers and the staff required to support our commitment to the travel agent, large and small. In addition to this substantial outlay of corporate funds, we continue to pay these same travel agents a 10% commission every time they use our equipment to book passengers on American.

I and many of my co-workers feel we have created a wonderful product through our hard work and creativity and are now being punished for being successful at what we do. We could lose our airline employment and associated benefits because we did such a good job. Ironically, we would be better off had we worked for one of the airlines that attempted agency automation and failed, since those companies are not now threatened with divestiture.

The subcommittee members may feel we will not be affected by divesture since, presumably, the new company would continue to need our skills and abilities. However, we are very upset at the idea we would lose our company benefits and seniority, but because we take pride in American's performance and our part in its successes. We do not want to lose our relationship with a company which has provided us our standard of living, our financial future and our home away from home for many years.

If there are problems current computers in terms of competition and bias, surely these problems can be resolved by changes such as the elimination of schedule bias that was implemented last year. In our minds, divestiture is overkill, an attempt to "throw out the baby with the bath water". I urge the subcommittee to explore alternative solutions to existing problems that will not punish success in a free enterprise society.

STATEMENT OF TRANS WORLD AIRLINES, INC.

DIVESTITURE

I. Background

During the 1960's TWA and other airlines began developing computer reservation systems (CRS) to assist in controlling and selling their air transportation product. While CRS were initially developed for use by internal sales personnel, the travel industry soon perceived the cost efficiencies that could be achieved by providing CRS to travel agents.

In the 1960's and 1970's TWA participated in a variety of industry investigations into the feasibility of developing a common industry CRS for use by travel agents. Efforts to achieve a common system were unsuccessful, partially due to antitrust concerns. TWA continues to support the concept of a neutral reservation system, which is domonstrated by TWA's discussions with IATA on the feasibility of developing a Neutral Industry Booking System (NIBS).[1]

In 1976, after another breakdown in discussions regarding the development of an industry system named Joint Industry Computerized Reservations System, United began marketing its CRS, Apollo, directly to travel agencies. American soon began its own effort to market Sabre, and TWA, perceiving a competitive threat, started to market PARS in an effort to keep American and United from dominating the airline distribution system.[2]

By October, 1983, when TWA submitted its comments to the CAB on EDR-466, Advance Notice of Proposed Rulemaking, TWA's PARS products had achieved an automation share of about 18 percent. This 18 percent share meant that while TWA benefited from the then-existing PARS bias, TWA also suffered from the bias imposed against TWA in the dominant Apollo and Sabre systems. This fact was a crucial element in TWA's decision to support the Final Rule, Display of Joint Operations in Carrier-Owned Computer Reservation Systems, 49 Fed. Reg. 12676 (March 30, 1984) and Final Rule, Carrier-Owned Computer Reservations Systems, 49 Fed. Reg. 32540 (August 15, 1984).

TWA strongly supports unbiased CRS that allow non-discriminatory access for participating U.S. carriers who share in the cost of operating the CRS. Since travel agents are the dominant distribution channel for a majority of airlines, and since over 70 percent of travel agents depend on CRS for flight and fare information, TWA believes that unbiased displays and equal access to CRS is a competitive necessity for most U.S. carriers.

TWA also holds, however, that any discussion of U.S. CRS must address the fact that CRS operated by many foreign flags in their own countries are severely biased against U.S. flag carriers. U.S. flag carriers are placed at a competitive disadvantage when displayed in biased foreign CRS while foreign flags are displayed in U.S. systems without bias. As the only U.S. CRS-provider with significant foreign flag competition, TWA has a vested economic interest to insure that TWA is not placed at a competitive disadvantage vis-a-vis either foreign flag CRS or U.S. CRS.

II. Divestiture

A. Divestiture raises serious practical and legal problems

When promulgating the CRS Rules, the CAB considered divestiture, but rejected both partial and complete divestiture. In its rejection, it recognized that the legal considerations involved in divestiture are enormous and would require an adjudicatory type hearing into the issues of alleged anticompetitive practices to determine if such divestiture was appropriate. That type of investigation would, according to the CAB, take years. The CAB noted that the most immediate and appropriate response was to institute rules designed to correct immediate problems (EDR-466 C p. 41). There is no indication that the CAB's analysis of the time consuming efforts necessary to achieve divestiture or the legal barriers that would have to be overcome have changed since the CAB made its determination that divestiture should only be considered as a last resort, after implementing rules in this area.

It would be especially inappropriate now, with the CRS Rules just having been implemented, to institute a divestiture procedure. Before such a drastic remedy is proposed, the Rules should be given a chance to show if the anticompetitive practices of certain CRS vendors have been or will be, with some DOT modifications of the Rules, eliminated. Since the Rules may in fact eliminate the alleged anticompetitive practices, what then would be the basis of legislation ordering the CRS vendors to divest, especially in the case of the smaller systems such as TWA's PARS, Eastern's SODA and Delta's DATAS II, which have never been accused of being anticompetitive? Even if American and United have had and/or still retain elements of duopoly power, or have used their systems in unfair competitive practices, it has never been suggested that TWA has monopoly power or has been anticompetitive. If Congress ordered divestiture, however, TWA would suffer along with American and United, and in all probability would lose its investment in PARS.

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[1] It should be noted that if TWA, for example, voluntarily sold its PARS system to a group of carriers under the IATA NIBS proposal, then there would still be a number of carrier and non-carrier-owned competitive CRS. This would not necessarily be the case if Congress mandated a forced sale of carrier-owned CRS.

[2] Approximately 70 percent of TWA's U.S. revenues are generated by travel agents.

Divestiture is a trouble-laden and expensive process that warrants full consideration and investigation. Divestiture should only be considered if it is the sole means to eliminate uncompetitive conduct among CRS-providers, and then only after determination that divested CRS would in fact foster fairer competition than now exists. Divestiture must be proven to represent the best interests of the public and the travel agency community.

B. Divestiture would not foster fairer competition

1. Divestiture would make U.S. carriers that fly overseas less competitive.—It is widely recognized throughout the industry U.S. Carriers are displayed in a severely biased manner in a majority of CRS system operated by foreign flags. This bias operates to the detriment of TWA and other carriers that serve overseas markets, and at this TWA's only protection is the ability to take retaliatory action by biasing overseas carriers in PARS.[3]

If divestiture was effected, TWA believes we would lose even this existing protection against foreign flag CRS bias. The owners of a divested CRS would have no incentive to bias against foreign flags, and would probably be forced by competitive pressures to offer a wholly non-biased display. Apollo and Sabre already have entered into participation agreements with many foreign carriers, and it can be assumed that owners of a divested PARS system would enter into similar participation agreements.

The magnitude of lost revenue that can be attributed to foreign CRS bias is enormous, and, in fact, is so severe that TWA and others are contemplating taking action against biased foreign CRS. The German START system, for example, only displays Lufthansa flights on the first screen of its city-pair availability display, regardless of the service offered by U.S. flag carriers. The second screen is reserved for Lufthansa connecting flights. U.S. carriers are relegated to the third or fourth city-paid availability screen. This severe and anti-competitive bias is true even when U.S. carriers have non-stop service and LH offers direct or connecting flights.

TWA strongly believes that divestiture would actually increase TWA's competitive disadvantages in international markets by allowing foreign carriers to enjoy the economic benefits of unbiased systems in the U.S. while continuing to severely bias U.S. carriers in their own CRS.

2. Divestiture would wrongfully punish successful competition.—In 1975, only 10 years ago, no travel agents were automated with airline CRS. Since then, every airline in this country has had and continues to have the opportunity to introduce its own CRS products. Non-airline entities also have the opportunity to introduce CRS. There are only two entry barriers: (1) a company must have sufficient capital to invest, and (2) a company must make the business decision to enter the CRS market.

Many of the airlines that are seeking divestiture have access to the capital that is needed to invest in CRS, and many have also already developed for internal use the basic reservations systems that are needed to enter the CRS market. Over the past 10 years, each airline has used its best judgement to determine which investment decisions will yield the greatest returns, and at this time five airlines have determined that investment in CRS is a productive use of capital. It now appears that these airlines, including TWA, have made sound business decisions. CRS yield a fair but modest return on investment to their owners, and this fair return can be achieved without denying non-CRS carriers equal access to the travel agency distribution channel.

A few airlines that freely decided not to invest in CRS are now asking for CRS divestiture. These airlines are saying that because they did not have the foresight to invest in CRS, or because they do not have the desire to invest in CRS now, no airline should be allowed to invest in CRS. In effect, they are asking Congress to punish five of their competitors because these competitors have made good business decisions. TWA does not believe that punishing legally achieved business success is the proper function of Congress.

Some carriers that are seeking divestiture do not have access to the capital that is required to enter the market, however, the need for capital is not unique to the CRS business, and in fact every business investment in America requires an allocation of capital. The ability to raise capital is one measure of a company's success at competing in a free market, and is a basic tenet of capitalism. Divestiture of airline-owned CRS would be little more than a punishment inflicted by carriers without the cap-

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[3] Foreign carriers that operate automated systems which discriminate against U.S. carriers are excluded from the protection of the DOT's CRS Rules. Thus, domestic CRS are free to bias such foreign carrier's in their displays if they so chose. Part 255.9.

ital to invest in CRS onto carriers that have been able to obtain the capital required to enter the CRS market. This punishment would be inherently contrary to the free enterprise system.

3. Divestiture could result in a CRS monopoly.—Current investment in CRS has been enormous, and, assuming a sale price could be calculated, a substantial capital outlay would be required for a non-airline entity to purchase an existing CRS or develop a system from ground zero. It is therefore possible that the final outcome of divestiture would be the elimination of CRS competition that now exists, and the installation of a single, monopolistic system with the power to dictate prices to airline participants and travel agents. This would be a most ironic conclusion for both Congress and airlines that are seeking divestiture.

C. Divestiture would be a seizure of assets that would entitle airlines to fair compensation

Congress' order to divest is little different from an illegal appropriation of property and completely inappropriate unless the carriers are given fair and adequate compensation. CRS carriers have made substantial capital investments at great risk to develop their CRS, and now are entitled to a return on that investment. When TWA began developing PARS in 1976 we certainly had no reason to believe that the government that praises the virtues of airline deregulation would take such a draconian step as forced divestiture.

The cost of divestiture will be enormous. Through 1983, TWA alone has invested more than $144 million in travel agency automation, and this does not inlcude the cost of operating the system. Additional and major investment has been made since 1983, plus, this $144 million excludes the benefit TWA derives from bias against foreign flags, and it does not include the present value of future income.

It may be possible to sell PARS, but there is no assurance that TWA would receive a fair price for its investment. Any sale would be effected at a depressed price because with five systems "on the block" a buyers' market would be guaranteed.

It is also doubtful that TWA would receive fair compensation for our lost leverage vis-a-vis foreign flags. Right now one of the primary benefits TWA derives from PARS is our ability to bias foreign flags when they bias TWA in their own CRS. If PARS were sold, the buyer would place no value on this capability. In fact, it would be in the new owner's best interest to grant foreign flags full participation so that additional booking fees could be collected, and also to insure that PARS is competitive with the divested Apollo and Sabre systems. It is therefore doubtful that TWA could negotiate a sales price that would fairly compensate TWA for this competitive weapon. TWA, however, would be fully entitled to this compensation.

There will be additional problems associated with determining the fair value of PARS, problems that will also apply to the valuation of other CRS. Two of these problems are discussed here.

1. What portion of TWA's softwqre investment in PARS can be attributed to agency automation, and what portion is attributable to the development of functions for internal TWA usage? Some enhancements were developed exclusively for external users, others were developed only for TWA personnel. In these cases an allocation of costs will be simple to determine. It will be more difficult to allocate costs associated with programs that benefit both user groups, such as availability and autopricing. If the government is required to compensate airlines for their CRS, the government will also have to assume the burden of working with CRS-owners to develop acceptable cost allocation formulas.

2. What is the Present Value of the future revenue that TWA will be forced to forego? The "price" of PARS will have to include compensation for the revenue that TWA will not receive because of divestiture. As in any Present Value calculation there are numerous "unknowns" that must be quantified: How many years would PARS keep on operating? 20 years? 40 years? Longer? What would be the rate of growth? What changes would be made in the booking fee for participants? In the fees to subscribers? In the costs of operating PARS? What Discount Rates should be applied? Every assumption that is make will be subject to debate and challenge, and an acceptable value will have to be assigned to every factor before the price of PARS can be determind.

The cost of divestiture is not limited to the five CRS airlines. Travel agents would also be entitled to compensation. They, too, have invested in these systems, and travel agents would also be entitled to compensation if divestiture required them to de-install one system and re-install another. There would be many costs involved, including the cost of transferring records from one system to another, retraining employees who operate CRTs, and, for some, replacing hardware. An innocent by-

standers to divestiture, travel agents, who are primarily small businesses, should not be required to suffer economic harm without receiving full compensation.

Who will pay for divestiture? If CRS are sold there is no guarantee that owners will realize a fair price. It is also possible that no buyers will step forward to purchase PARS. As the third largest CRS, TWA might be less attractive to buyers than either Apollo or Sabre. In either scenario, where would the money come from to compensate TWA, other CRS-owners, and travel agents?

Congress could allocate funds to cover the cost of divestiture. This means all taxpayers would share the burden, including individuals who never fly and corporations that do not require business air travel. Considering the emphasis that is now being placed on budget cuts to reduce the federal deficit, this solution would probably not be acceptable to the American taxpayer.

Another alternative is to distribute the cost across the travel industry. In this case, airlines that currently participate in CRS, airlines that own CRS, and travel agents that use CRS would share the cost of divestiture. This solution would place part of the burden on the "have not" airlines that claim they will most benefit from divestiture, and it is doubtful that these airlines would consider this alternative acceptable.

In whatever way divestiture is funded, the cost would be enormous, and the expense would not be justified. The problems that currently exist within CRS can be resolved through other, less extreme, alternatives.

D. Forums already exist to eliminate uncompetitive conduct among CRS providers

The primary impetus for divestiture is a concern that uncompetitive conduct engaged in by CRS-providers cannot be eliminated through alternative forums, and that the only available means to achieve truly "fair" CRS is by requiring airline CRS-providers to sell or otherwise rid themselves of these assets. This is not true, and the drastic, expensive, disruptive, and lengthy divestiture process is wholly unnecessary because the CAB Rules (now DOT) are the proper vehicles through which any concerns about CRS should be handled. These Rules were issued in response to government and industry concerns about competitive abuses and consumer injury resulting from certain CRS practices, and were written after 2 years of thorough investigations that included data submitted by airlines, travel agency groups, the Department of Justice, and other interested organizations. The Board had full authority to promulgate these Rules under Section 411 of the Federal Aviation Act, 49 U.S.C. § 1381.

The CAB Rulings were implemented on November 14, 1984, just four months ago. Four months is not an adequate amount of time in which to judge either their impact on the industry or their effectiveness in preventing CRS abuse. One "loophole" in the CRS Rules has already been identified: the re-emergence of bias through secondary displays that an agency owner or manager can "lock in" to all CRTs in the office. TWA believes these secondary displays violate the spirit and the letter of the Rules, however, instead of using divestiture as a means of closing this loophole, DOT should be requested to review this matter and issue revised Rules.

Two other sections of the Rules have also been questioned: (1) Whether the Board's "non-discriminating" pricing Rule is reasonable, and (2) whether the Board's exception for foreign air carriers that operate, or whose affiliates operate, a CRS outside the U.S. is valid. Both sections are currently under review in the United States Court of Appeals for the Seventh Circuit, which is a proper forum.

Considering the amount of human resources that have already been expended in the development and implementation of the CRS Rules, and which continue to be expended on adjustments and challenges to those Rules, it would be appropriate to let the Rules operate without divestiture threats for a reasonable period of time. This reasonable period should extend far beyond the four months that have just passed. TWA believes that these RuLes, with the proper amendments to eliminate secondary display abuses, should remain in effect until December 31, 1990, which is the date specified by the CAB.

III. Secondary Display Bias should be eliminated by DOT

The initial issue that prompted over two years of CAB investigation into CRS operations was display bias, and the intended purpose of the CRS Rules were to eliminate bias among U.S. carriers that elected to participate in CRS. In order to comply with the CRS Rules, TWA provided PARS travel agencies with an unbiased display as of November 14, 1984. At that time TWA's intention was to comply with both the

spirit and the letter of the CRS Rules by providing only an unbiased display to travel agencies.[4]

In early November, 1984, TWA first learned that one of our primary competitors was attempting to circumvent the CRS Rules by allowing travel agencies automated with its CRS to book from a biased "secondary" screen. On December 6, 1984, thirteen air carriers submitted a letter to the CAB requesting an interpretation of Sections 255.3 and 255.4 of the Board's Economic Regulations, and asked the Board to confirm that bias Rules extend to all secondary displays except for displays that are internal carrier displays accessed by a direct or multi-access function. On December 14, 1984 TWA sent its own letter to the CAB, requesting a clarification of Part 255 that would essentially eliminate bias from secondary displays. Other carriers, including American Airlines, have made similar requests. The CAB did not take action prior to Decmeber 31, and at this time DOT has not issued clarification.

Since then, and as a direct response to competitive pressure, TWA has offered PARS accounts its own version of a more biased secondary display. TWA, however, reaffirms its position that the resurgence of biased secondary displays is no more than a means of circumventing the CRS Rules, and TWA believes this Congressional forum should be a vehicle for requesting DOT to re-examine Part 255 and issue a clarification that will close the existing loophole.

If this action is taken, TWA believes that a primary impetus for divestiture will be removed, and that all participating U.S. carriers will have non-discriminatory access to the travel agent channel of distribution. Clarification of Part 255 will provide needed relief from bias without the quagmire of divestiture.

IV. Current booking fees are not excessive and should not be regulated

Another impetus for divestiture is the belief among a few airlines that current booking fees charged for participation in CRS are excessive and should be regulated. Dissatisfaction is highest among airlines that are now paying higher fees than those charged prior to November 14, 1984. And one of the issues currently being tested in the U.S. Court of Appeals for the 7th Circuit in Chicago is whether the Board's "non-discriminating" pricing Rule is reasonable. Intervening Respondents Frontier Airlines, Inc., et al. have asked the Court to either regulate booking fees through a "reasonableness of fees" requirement or totally eliminate booking fees (i.e. a "zero" price rule). TWA believes that no changes to the existing Rules are required, and that because current booking fees reflect actual costs, divestiture would not lower booking fees.

A. Booking fees should not be regulated

If implemented, the "reasonableness of fees" requirement currently before the 7th Circuit Court would require DOT to establish a pricing mechanism to determine "reasonableness." This would result in the creation of an extensive and pervasive regulatory system that would constitute an unwarranted throwback to the type of public utility regulation eschewed by Congress in passage of the Airline Deregulation Act of 1978. While the Deregulation Act relies on marketplace forces to establish competitive prices, the advocates of "reasonableness" for access fees do not. They do not propose to give the Board's unjust discrimination Rule—which specifies minimal intervention by the government in establishing fees—a chance. Instead, they would immediately scrap it in favor of establishing a bureaucratic rate-making body. It would be ironic if a complex rate-making procedure for access fees was established in this area which is only incidentally connected with air transportation, while fares and rates for air transportation services remain totally deregulated.

The "zero" price rule is also not a satisfactory substitute for the non-discriminatory price rule. Under the "zero" price rule air carrier participants would pay nothing for the services provided by the CRS. They would get a "free ride". Instead, all costs would be passed on to travel agents. This alternative is unfair and impractical. There is no reason why travel agents should have to pay all the CRS fees, especially when it is the air carriers that benefit most from this service. In addition, if travel agents have to pay the entire cost, the rental fee would rise dramatically. Many smaller travel agents could not afford these costs and would be faced with the alternatives of shrinking their level of operations so that their business could be conducted without CRS, of going out of business, or of trying to extract higher commissions from air carriers.

The zero price rule would ultimately result in fewer travel agents overall, and more travel agents that are owned by national consortiums. The net effect would

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[4] TWA's primary display is truly unbiased, and a description of TWA's Display Sequence and System Logic appears in Attachment B.

yield less competition among travel agents due to the demise of independent travel agents, and an increased concentration of ownership at the retail level.

B. Current booking fees are not excessive

In the four months since the introduction of the CAB Rules TWA has conducted internal audits to access the economic impact of the non-discriminatory pricing policy on our bottom line. While projections change daily as participants join PARS and as the shifting impact of secondary display bias is evaluated, TWA's analyses indicate that on a fully allocated basis the $1.75 booking fee enables TWA to earn a fair but not excessive contribution to overhead. This fair return on investment is the same fair return that every business entity strives to achieve and is entitled to receive when risk is taken.

TWA's current booking fee of $1.75 is a full $0.78 less than the $2.53 that TWA projected in our November 1983 comments on EDR-466, Advance Notice of Rule-making. It is also within the $1.50 to $2.00 range that the CAB considered. The fears of fees between $2 and $3 have not materialized. (See ER-1385 at 31.)

The existing levels of booking fees simply do not warrant the current requests for extremities like divestiture or price controls. Given the prevalence of travel agency automation and the symbiotic relationship between travel agents and most airlines, TWA believes carriers must accept the fact that booking fees are simply one of the costs of doing business, just as commissions, fuel, and landing fees are a cost of doing business. While most companies strive to control expenses, asking Congress to decrease the expenses of non-CRS airlines by robbing CRS-owners of their lawfully-earned investment returns is not a credible tactic.

V. Conclusion

Any discussion of U.S. CRS must also address the issue of foreign CRS bias. Any action that is taken must be structued to insure that no benefits are given to foreign flags that bias U.S. flag carriers in their own CRS.

The CRS Rules are only four moths old, and should be fully tested before they are discarded.

Secondary bias is a loophole in the CRS Rules that needs to be closed. Closing this loophole would remove the primary impetus for divestiture.

Booking fees should not be regulated.

Divestiture would be an unwarranted seizure of assets that is contrary to the free enterprise system. If effected CRS-owners would be entitled to fair compensation.